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Department of Natural Resources and Conservation
Real Estate Management Bureau

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Dear Interested Party:

The Montana Department of Natural Resources and Conservation (DNRC) has released the Final Real Estate Management Programmatic Environmental Impact Statement (FEIS). The FEIS identifies a range of alternatives, including a preferred alternative, that would provide the Division's Real Estate Management Bureau with consistent policy, direction, and guidance in its management of real estate activities on the state's 5.2 million acres of Trust Lands. Based on comments received on the Draft EIS, the FEIS proposes one additional alternative (Alternative D), as the preferred alternative, that shares characteristics common to Alternatives B and C.

In addition to the attached hard copy, the FEIS may be viewed at the DNRC web site:
www.dnrc.state.mt.us/

The Land Board will vote to approve-adoption of the Real Estate Management Plan at one of the regularly scheduled meetings in early 2005.

Sincerely,

A handwritten signature in cursive script, reading "Jeanne Holmgren".

Jeanne Holmgren
Chief, REMB

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HOW TO READ THIS DOCUMENT

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Final Real Estate Management Programmatic Environmental Impact Statement

EXECUTIVE SUMMARY

INTRODUCTION

The Trust Land Management Division (TLMD) of the Montana Department of Natural Resources and Conservation (DNRC or the Department) has prepared a Final Programmatic Environmental Impact Statement (FPEIS or PEIS) to analyze and disclose impacts, and compare alternative management strategies for real estate management on state Trust Lands. The preferred alternative will become the Real Estate Management Plan (Plan). The Plan will provide the Division's Real Estate Management Bureau (REMB) with consistent policy, direction and guidance in its management of real estate activities on the state's 5.2 million acres of Trust Lands.

THE PROPOSED PLAN

The Montana Environmental Policy Act (MEPA) requires the evaluation and disclosure of various management alternatives, from which the preferred alternative (the Plan) would be chosen. This process includes release of a Draft Programmatic Environmental Impact Statement (DPEIS) for public review and comment. The Final Environmental Impact Statement (FEIS) identifies the Preferred Alternative.

The Director of the Montana Department of Natural Resources and Conservation has decision-making authority for the Real Estate Management Programmatic Environmental Impact Statement. All state trust lands are under the direction and control of the State Board of Land Commissioners which includes the Governor, Superintendent of Public Instruction, State Auditor, Secretary of State, and Attorney General (Article X, section 4, 1972 Montana Constitution). The Land Board will have ultimate authority to implement the Real Estate Management Plan.

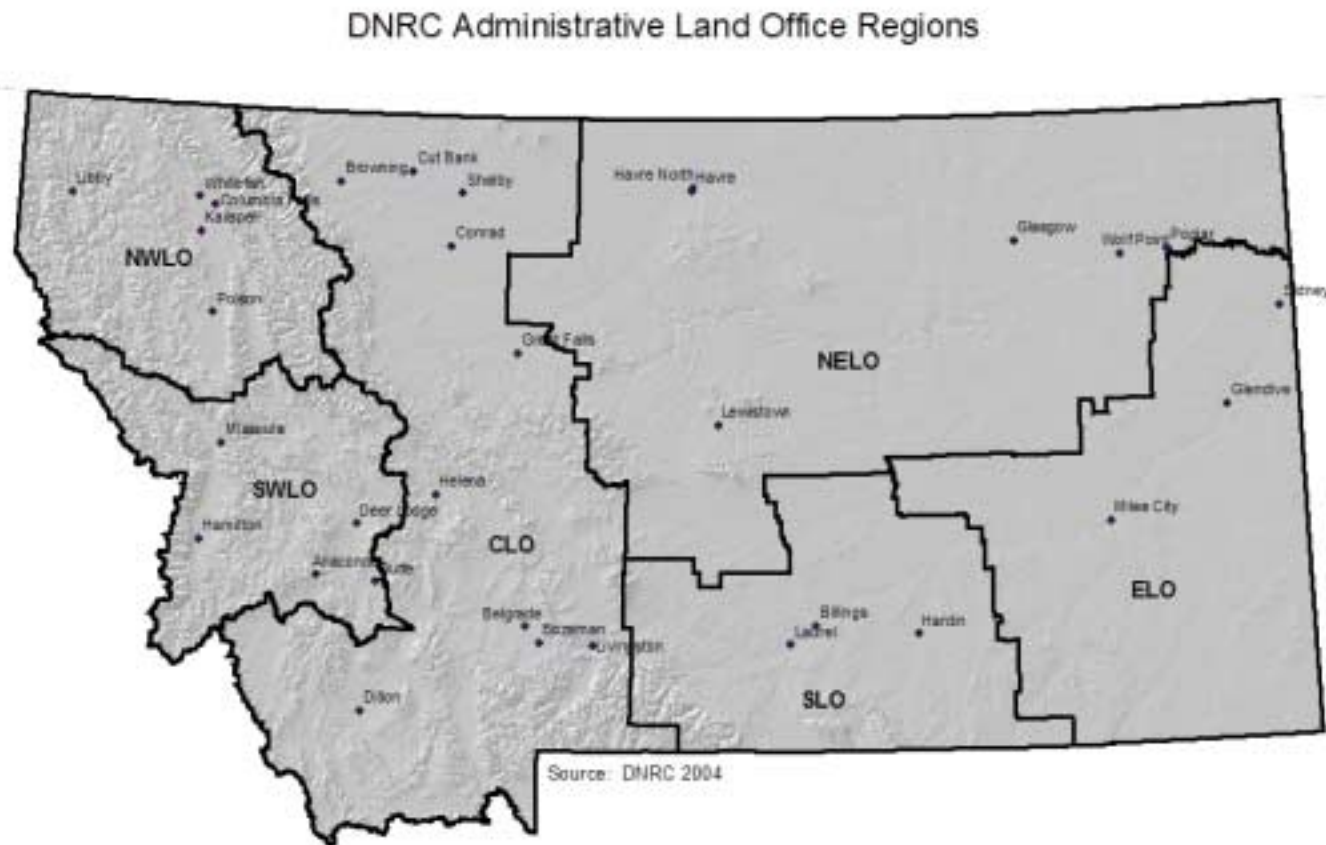
The mission of the TLMD is to "manage the State of Montana's Trust Land resources to produce revenues for the Trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land." Revenue is generated on behalf of the Trust Land beneficiaries, including public schools, K-12th grade and universities, and other public institutions and facilities. This is accomplished through the management of almost 5.2 million acres (plus subsurface rights) of Trust Lands granted to the State of Montana at statehood by the federal government. More particularly, the REMB is responsible for generating revenue from real estate activities on Trust Lands related to residential, commercial, and industrial and conservation land uses.

LEGAL AND ADMINISTRATIVE FRAMEWORK.

Legal Framework – Trust Lands were granted to the state by the Federal Government when Montana was admitted into the Union. Currently, Montana's Trust Land acreage totals more than 5.1 million surface and 6.2 million mineral acres. Montana's Constitution and Enabling Act (1889) expressly require that Trust Lands be managed to provide revenue in support of the beneficiaries of the Trust Lands. The courts have consistently upheld this mandate.

Administrative Framework – Pursuant to 77-1-301, MCA, the DNRC manages the surface and mineral resources for the benefit of the common schools and other endowed institutions in the State of Montana, within six administrative land offices, under the direction of the State Board of Land Commissioners. The Department's obligation for management and administration of Trust Land is to obtain the greatest benefit for the beneficiaries. The greatest monetary return must be weighed against the long-term productivity of the land to ensure continued future returns to the trusts. The division is divided into four bureaus: Forest Management, Mineral Management, Agriculture and Grazing Management, and Real Estate Management (REMB). The plan would only address management activities of the REMB.

Figure 2-1. DNRC Administrative Land Office Regions



The Current REMB Program – The REMB manages residential, commercial, industrial and conservation uses on Trust Lands and secondary uses on lands classified for timber, agriculture and grazing uses. Additionally, the REMB manages programs and processes for the issuance and acquisition of easements, the exchange of Trust Lands for private and federal lands, and the sales and purchases of Trust Lands. Under the current program, the REMB makes use of two categories of management tools – land use authorizations and land transactions in its management of residential, commercial, industrial, and conservation uses as outlined below:

- Land Use Authorizations – These provide for uses on Trust Lands for which the state is reimbursed but do not include the transfer of ownership. Authorizations include leases, licenses, and easements. Authority for the issuance and approval of land use authorizations rests with the DNRC.
- Land Transactions – Montana statute provides for the sale, purchase or exchange of Trust Lands. Authority for the issuance and approval of land use transactions rests with the State Board of Land Commissioners.

NEED FOR THE ACTION

The REMB is facing critical challenges in fulfilling its land management responsibilities. These challenges include:

- To undertake real estate management activities in a changing economic environment. Certain areas of Montana are enduring economic decline, others are experiencing rapid growth. In areas of high growth, opportunities exist to garner greater income on behalf of the Trust Land beneficiaries.
- To provide personnel with consistent policy, direction and guidance for the REMB in the management of state Trust Lands.

What Area will the Plan Address?

The Real Estate Management Plan will have application to the entire surface holdings of the TLMD, approximately 5.2 million acres statewide. The lands are, and will continue to be managed by six land offices, geographically distributed across the state.

What will the Plan not Address?

It will not determine any specific real estate program or project. It will not address site specific issues nor will it make specific land use allocations.

What Time Period would be Addressed by the Plan?

The selected Real Estate Management Plan will continue through the year 2025. However, the Plan will contain provisions for updates and revisions over time to reflect changing conditions.

OBJECTIVES OF THE PLAN

The objectives of the plan are to identify a land management philosophy for the REMB and to:

- Generate increased revenue for Trust Land beneficiaries greater than current levels
- Comply with the Montana Environmental Policy Act (MEPA) requirements for developing a programmatic plan, DNRC's administrative procedures regarding MEPA (ARM 36.2 et. Seq.) and the Montana Antiquities Act (22-3-424, MCA), in their most current form
- Provide a more effective and efficient decision-making framework for residential, commercial, industrial and conservation uses
- Simplify the project level evaluation process
- Protect the long-term viability of Trust Land for residential, commercial, industrial and conservation uses
- Provide an opportunity for public involvement in decisions affecting land uses on Trust Lands
- Develop ways to work more closely with local government processes and policies

PURPOSE OF THE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (PEIS)

The purpose of this PEIS is to identify and evaluate alternative strategies for performing the program responsibilities of the REMB. In keeping with this purpose, essential components of this PEIS are to:

- Identify the roles, duties, and purpose of the REMB.
- Identify a systematic process for proposing and evaluating land use proposals on school Trust Lands;
- Evaluate the social, economic, and environmental effects of alternative plan philosophies; and
- Select a preferred plan to guide the decisions of the REMB.

THE SCOPE OF THIS PEIS

This PEIS presents a series of alternative programmatic management approaches and evaluates their potential environmental effects. It does not address any specific real estate program or project. It does not address site specific issues nor does it make specific land use allocations. Individual activities of the REMB will be subject to the provisions set forth in MEPA.

AREAS OF CONTROVERSY AND CONCLUSIONS

Issues that were identified through the initial public scoping process and by a DNRC staff are as follows:

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1. In order to meet its fiduciary responsibilities to the beneficiaries, the DNRC must increase revenue associated with the management of commercial, industrial, residential and conservation uses on Trust Lands.
2. The REMB is managing land uses in a reactive manner without the benefit of well-defined planning process or decision making framework.
3. The REMB currently lacks a methodology for determining the suitability of land for the development of the various uses under its jurisdiction.
4. A successful real estate program will rely on a close association with local land use planning and regulatory processes.
5. The relationship of the statutory requirements under MEPA to the selection and development of projects on Trust Lands is unclear.
6. There is a need to identify opportunities for Categorical Exclusions (CE's), as provided under MEPA, consistent with the purpose for development of a programmatic plan (ARM 36.2.522(5))
7. The REMB requires guidance in addressing the growth inducing impacts of development of commercial, residential and industrial uses on Trust Land
8. The REMB requires guidance in addressing the impacts of growth with respect to transportation, air quality, noise, and other environmental concerns.
9. The REMB requires guidance in addressing open space and wildlife habitat needs while providing income for trust beneficiaries.
10. The filter process should include biological filters and clearly define relationships to local land use regulations.
11. DNRC needs to track costs of the program, not just revenue.
12. The Plan should identify lands that would be developed.
13. The REMB should be proactive in project identification and project involvement to ensure desired land uses outcomes.

In recent years, the people of the State of Montana have become increasingly concerned about the level of funding for public education. This concern came to light in a recent Montana District Court decision (April, 2004), that found Montana is violating its own Constitution by failing to adequately fund public education and must have a new financing plan in place by October of 2005. Although the final disposition of the case is not clear, the contribution that Trust Lands can make to the school funding base, will become increasingly important as the state struggles with finding sources of revenue to address school funding needs. At the same time, the Montana economy is becoming increasingly dependent on non-resource based industries. According the U.S. Bureau of Economic Analysis, the largest industries in Montana in 2001 were services, constituting 27.7 percent of earnings; state and local government, 14.9 percent; and retail trade, 11.3 percent.

The majority of Trust Lands will continue to be managed for their resource values under any of the alternatives presented in this PEIS. Grazing lands comprise almost 80 percent of the total surface acres managed by the TLMD. Agricultural (farming) land comprises about 11 percent of the total surface acres and forested acres comprise about 9 percent of the total land base. Non-resource

based activities including commercial, industrial and, residential uses comprise less than one percent of the Trust Land base.

In many cases, the Trust Lands that offer the greatest opportunity for non-resource based development are those that are in growing communities where land use activities often have a high level of public interest. Each of the six alternatives adhere to a close association with the local project review processes to maximize public involvement and participation in the land use decision-making process.

THE ALTERNATIVES

Alternatives Considered but Eliminated From Detailed Study

DNRC is required to consider only alternatives that are realistic, technologically available, and that represent a course of action that bears a logical relationship to the proposal being evaluated (36.2.5552.b ARM; 75-1-201 (2) (iv) (C) (I), MCA).

Minimal/Passive

Some commentators suggested that the DNRC consider a passive alternative, where the REMB would defer new residential, commercial and industrial uses and allow existing land use authorizations to expire. The only uses allowed would have to be non-consumptive, non-extractive, and reversible. Land use activities involving commercial, industrial and residential development would not be authorized. Sales, exchanges and easements would be minimal. This alternative was eliminated from detailed study because it conflicts with the Mission of the Trust Lands Management Division and first objective of the proposed action: Generate increased revenue for trust beneficiaries.

Aggressive Management

Some commented that the REMB should aggressively market residential, commercial and industrial uses wherever possible and use all exemptions available to maximize income to the beneficiaries. The DNRC should accept some adverse environmental effects and adverse public comment in order to earn greater revenue for the trust beneficiaries. This alternative was eliminated because it conflicts with the following objectives listed in Section 1.3:

- It would be in direct conflict with the TLMD's mission to manage Trust Land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land.
- It would de-emphasize opportunities for public involvement in decisions affecting real estate management.
- It would not simplify the project level evaluation process

Long Term Resource Management and Conservation

Some suggested REMB emphasize the protection of wildlife habitat, open space and public recreation opportunity, and the placement of public facilities on Trust Lands. Residential,

commercial and industrial uses would be considered only to the degree that such uses enhanced or did not conflict with these primary resource values.

The primary focus would be placed on using lease and easement agreements and other conservation strategies for the preservation of wildlife habitat, open space, and other natural and cultural resources. This approach would be primarily taken in rural areas, although in certain circumstances it may be appropriate in urban areas with unique natural resource values. If there were conflicts, wildlife and natural resource values would take precedence over all other uses, including public access and recreation.

This alternative was eliminated because it did not address the TLMD's mission related to the generation of revenue for the beneficiaries. In addition, conservation would be a possible land use under any of the alternatives being considered in this EIS, provided the Trusts were fully compensated for the foregone development rights. Finally, current legislation (77-2-101, MCA) limits the use of conservation easements on Trust Lands. Under this statute, conservation easements may only be granted to the Montana Department of Fish, Wildlife, and Parks (FWP) for parcels that are surrounded by or adjacent to land owned by FWP as of January 1, 2001. Easements may be awarded to a nonprofit corporation only for parcels that are surrounded by or adjacent to land owned by that same nonprofit corporation as of January 1, 2001. However, Alternatives B-1 and C-1 were influenced by these concepts.

Alternatives Presented

This PEIS presents six alternative approaches to real estate management developed in response to and driven by the issues, including a no-action alternative. Under all the alternatives:

- Trust Lands would share proportionately in varying degrees to the future growth of commercial, industrial, and residential land uses within the six land office regions of the state.
- The suitability of Trust Lands for developed and conservation uses would be determined with respect to the physical and natural environment as well as to the proximity to community services and other considerations as described by a funnel filter approach.
- The REMB would utilize Real Estate Identification Team (REIT) approach to prioritize project opportunities on a state-wide basis
- All land use proposals on Trust Lands would be subject to local land use regulatory processes as appropriate.
- All alternatives would permit for unlimited conservation uses.

Evaluation measures for each alternative primarily pertain to acres of new developed or conservation uses and how those uses on Trust Lands would affect the natural and social environment and the revenue return to the beneficiaries. The acreage estimates of increased revenue-generating uses of Trust Lands are not goals or targets. The levels (acres) of development provide a measurement for monitoring the progress of the REMB in achieving its desired share of the anticipated growth in land use.

The Real Estate Management Program alternatives described in this Programmatic EIS depict varying levels of participation by DNRC in the growth market in Montana. Tables E-1 and E-2 present estimates of total anticipated rural residential and commercial/industrial growth measured in acres on *all* lands in each DNRC land office region. A proportion of this total expected growth that could occur on state trust lands is identified by alternative.

Table E-1. Growth Estimates for Rural Residential Acreages on all Land Ownerships					
Land Office Region	Growth Estimates (acres) by Time Period				
	2003-2010	2011-2015	2016-2020	2021-2025	Totals
NWLO	10,776 – 17,960	7,016 – 11,694	7,181 – 11,968	7,474 – 12,456	32,446-54,078
SWLO	8,575 – 14,291	5,918 – 9,863	6,122 – 10,203	6,344 – 10,574	26,959-44,931
CLO	2,739 – 4,565	5,293 – 8,821	5,570 – 9,283	5,818 – 9,696	19,420-32,365
NELO	(225) – (135)	46 - 76	67 - 111	96 – 160	(16) - 212
SLO	3,270 – 5,450	2,197 – 3,661	2,289 – 3,815	2,405 – 4,008	10,161-16,934
ELO	(213) – (128)	31 - 51	72 - 120	49 - 81	(61) - 124
Grand Total	24,922 – 42,003	20,501 – 34,166	21,301 – 35,400	22,186 – 36,975	88,909-148,644

Jackson, 2004

Table E-2. Growth Estimates for Commercial/Industrial Acreages on all Land Ownerships					
Land Office Region	Growth Estimates (acres) by Time Period				
	2002-2010	2011-2015	2016-2020	2021-2025	Totals
NWLO	2,540 – 4,234	1,678 – 2,796	1,854 – 3,090	2,051 – 3,418	8,123-13,538
SWLO	3,157 – 5,261	2,090 – 3,483	2,344 – 3,906	2,615 – 4,358	10,206-17,008
CLO	3,784 – 6,306	2,379 – 3,965	2,685 – 4,475	2,977 – 4,961	11,825-19,707
NELO	777 – 1,295	615 – 1,025	668 – 1,114	736 – 1,226	2,796-4,660
SLO	2,606 – 4,344	1,725 – 2,875	1,935 – 3,225	2,159 – 3,598	8,425-14,042
ELO	320 - 533	132 - 220	155 - 258	170 - 283	777-1,294
Grand Total	13,184 – 21,973	8,619 – 14,364	9,641 – 16,068	10,708 – 17,844	42,152-70,249

Jackson, 2004

Alternative A – The Current Program

Under this alternative, REMB would move the existing real estate program forward into the future in a fashion that remains cognizant of current market conditions. New projects would be identified and prioritized primarily based upon outside inquiries and/or proposals from DNRC personnel with land planning expertise. Under this alternative, it is expected that Trust Lands would realize less, on a proportional basis, than a fair share of the regional market growth. Estimated residential, commercial, and industrial growth under Alternative A assumes Trust Lands share 2-5% of the new

anticipated growth, depending on location. The projected range of annual growth of “rural residential” and “commercial/industrial” on Trust Lands is presented in Tables E-3 and E-4.

Table E-3. Alternative A: Growth Estimates for Rural Residential Acreages on Trust Lands				
Land Office Region	Growth Estimates (acres) by Time Period			
	2003-2010	2011-2015	2016-2020	2021-2025
NWLO	539 - 898	351 - 585	395 - 599	374 - 623
SWLO	300 - 500	207 - 345	215 - 358	222 - 370
CLO	110 - 183	212 - 353	223 - 371	233 - 358
NELO	(10) - (6)	2 - 4	3 - 5	5 - 8
SLO	65 - 109	44 - 74	46 - 76	48 - 80
ELO	(5) - (9)	2 - 3	3 - 5	2 - 4
Total Ranges	999-1675	818-1364	885-1414	884-1443

Table E-4. Alternative A: Growth Estimates for Commercial/Industrial Acreages on Trust Lands				
Land Office Region	Growth Estimates (acres) by Time Period			
	2002-2010	2011-2015	2016-2020	2021-2025
NWLO	127 - 212	84 - 140	103 - 171	102 - 171
SWLO	111 - 184	73 - 122	92 - 153	92 - 153
CLO	151 - 252	95 - 159	119 - 199	119 - 199
NELO	35 - 58	28 - 46	33 - 55	33 - 55
SLO	52 - 87	35 - 58	43 - 72	43 - 72
ELO	13 - 21	5 - 9	7 - 11	7 - 11
Total Ranges	489-814	320-534	397-661	396-661

Under Alternative A, the current program, the REMB considers conservation opportunities as a priority on a percentage of those Trust Lands lying adjacent to existing conservation type lands. These would include federally designated areas such as National Parks and Monuments, Wilderness Areas, Wild and Scenic Rivers; Wildlife and Game Refuges and Public/Private Conservation Easements (hereinafter referred to as conservation type lands).

Staffing and staffing expertise would remain unchanged. There may be some limited sharing of personnel among Land Offices where certain expertise may be brought to a specific project on an as needed basis.

The projected rate of return on equity for Alternative A would be approximately 2.76%.

Alternative B – Diversified Portfolio

Alternative B seeks to secure a broad based portfolio of income producing properties. This would be accomplished through proactive strategies intended to keep pace with regional market growth and by capturing opportunities identified by others. The REMB would make use of a funnel filtration process and assume a more active role [as compared to Alternative A] in creating new revenue opportunities for the trusts. This would include the identification of lands suitable for development and the active pursuit of the entitlements that would help position the lands in the market place. In addition, more staff resources would be directed towards selecting and ranking projects for more specific project level review.

The range of projected annual growth of “rural residential” and “commercial/industrial” on Trust Lands under Alternative B is presented in Tables E-5 and E-6. These values represent a direct proportion of shared growth based upon the proportion of Trust Lands to other land ownerships (minus “federal” and “water”) within a specific land office region

Table E-5. Alternative B: Growth Estimates for Rural Residential Acreages on Trust Lands				
Land Office Region	Growth Estimates (acres) by Time Period			
	2003-2010	2011-2015	2016-2020	2021-2025
NWLO	1077 – 1795	702 – 1170	718 – 1196	747 – 1245
SWLO	600 – 1000	414 – 690	428 – 714	444 – 740
CLO	219 – 365	424 – 706	446 – 743	467 – 776
NELO	(12) – (20)	5 – 8	6 – 10	8 – 14
SLO	131 – 218	88 – 146	92 – 153	96 – 160
ELO	(11) – (18)	2 – 4	6 – 10	4 – 6
Total Ranges	2004-3340	1635-2724	1696-2826	1766-2165

Table E-6. Alternative B: Growth Estimates for Commercial/Industrial Acreages on Trust Lands				
Land Office Region	Growth Estimates (acres) by Time Period			
	2002-2010	2011-2015	2016-2020	2021-2025
NWLO	254 – 423	168 – 280	185 – 309	205 – 342
SWLO	221 – 368	146 – 244	164 – 274	183 – 305
CLO	303 – 505	190 – 317	215 – 358	238 – 397
NELO	70 – 117	55 – 92	60 – 100	66 – 110
SLO	104 – 174	69 – 115	77 – 129	86 – 144
ELO	26 – 43	11 – 18	12 – 21	14 – 23
Total Ranges	978-1630	639-1066	713-1191	792-1321

Under Alternative B, the REMB would consider conservation opportunities a priority on a percentage of those Trust Lands lying within one half mile of land with existing conservation type lands. Conservation use would generally be achieved through the sale or lease of development rights on lands with residential values.

Alternative B would require the allocation of additional financial resources to the REMB. Additional funding would be necessary for increased staffing and project support, including costs to improve land entitlements. Additional funding sources may be sought to achieve program objectives through a development improvement fund (revolving) and a percentage share of lease and sale revenue.

The projected rate of return on equity for Alternative B would be approximately 4.66% - 5.13%, with the latter value reflecting the added benefit of improved land entitlements.

Alternative B-1 – Diversified Portfolio – Conservation Priority

Alternative B-1 incorporates all of the elements of Alternative B with the exception of Conservation uses on Trust Lands. As under Alternative B, the REMB would consider conservation opportunities a priority on a percentage of those Trust Lands lying within one half mile of lands with existing conservation authorizations. Conservation use would generally be achieved through the sale of development rights on lands with residential values. Half of the estimated rural residential development on Trust Lands anticipated under Alternative B would be set aside for additional conservation opportunities. The projected rate of return on equity for Alternative B-1 would be approximately 4.46% .

Alternative C – Focused Portfolio

Under this alternative, the REMB would actively evaluate the Trust Land revenue opportunities on a continual basis to determine a full range of project opportunities. The REMB would react quickly to market opportunities and attempt to realize a higher proportion of the anticipated growth in regional markets. Projects that return the highest net revenue to the trusts would be given higher priority under this alternative.

The projected range of annual growth of “rural residential” and “commercial/industrial” on Trust Lands under Alternative C is presented in Tables E-7 and E-8. Depending on the land office region, growth of residential, commercial, and industrial uses on Trust Land would range between 8 and 20% of the anticipated growth of those sectors. These percentages assume that Trust Lands will experience a higher proportion (on a per acre ratio with other lands) of residential, commercial, and industrial uses.

Table E-7. Alternative C: Growth Estimates for Rural Residential Acreages on Trust Lands					
Land Office Region	Growth Estimates (acres) by Time Period				
	2003-2010	2011-2015	2016-2020	2021-2025	Total
NWLO	2156 – 3592	1403 – 2339	1436 – 2394	1495 – 2491	6490-10816
SWLO	1200 – 2000	829 – 1381	857 – 1429	888 – 1480	3774-6290
CLO	438 – 730	847 – 1411	891 – 1485	931 – 1551	3107-5177
NELO	(24) – (40)	8 – 14	12 – 20	17 – 29	13-23

Table E-7. Alternative C: Growth Estimates for Rural Residential Acreages on Trust Lands					
Land Office Region	Growth Estimates (acres) by Time Period				
	2003-2010	2011-2015	2016-2020	2021-2025	Total
SLO	289 – 481	176 – 293	183 – 305	193 – 321	841-1400
ELO	(20) – (34)	5 - 9	12 - 20	8 - 13	5-8
Total Ranges	4039-6729	3268-5447	3391-5653	3532-5885	14230-23714

Table E-8. Alternative C: Growth Estimates for Commercial/Industrial Acreages on Trust Lands					
Land Office Region	Growth Estimates (acres) by Time Period				
	2002-2010	2011-2015	2016-2020	2021-2025	Total
NWLO	508 – 847	336 – 559	371 – 618	410 – 683	1625-2707
SWLO	442 – 737	293 – 488	328 – 547	366 – 610	1429-2382
CLO	605 – 1009	381 – 634	430 – 716	476 – 793	1892-3152
NELO	140 – 233	111 – 185	120 – 200	133 – 221	504-839
SLO	208 – 347	138 – 230	155 – 258	173 – 288	674-1123
ELO	51 - 85	21 - 35	25 - 41	27 - 45	124-206
Total Ranges	1954-3258	1280-2131	1429-2380	1585-2640	6248-10409

Under Alternative C, the Bureau would consider conservation opportunities as a high priority on a percentage of those Trust Lands that lie within one mile of lands with existing conservation authorizations. Conservation use would generally be achieved through the sale or lease of development rights on lands with residential values.

Alternative C would require a more specialized staff. While the Bureau would still try to share expertise among Land Offices, the level of activity would require a larger staff over all. As under Alternative B, expertise would be needed in planning, real estate, appraisal, marketing and finance. It is estimated that four additional staff would be required as compared to Alternative A.

The projected rate of return on equity for Alternative C would be approximately 5.48% - 6.35%, with the latter value reflecting the added benefit of improved land entitlements.

Alternative C1 – Focused Portfolio – Conservation Priority

Alternative C-1 incorporates all of the elements of Alternative C with the exception of Conservation uses on Trust Lands. As under Alternative C, the REMB would consider conservation opportunities a priority on a percentage of those Trust Lands lying within one mile of lands with existing conservation authorizations. Conservation use would generally be achieved through the sale of development rights on lands with residential values. Half of the estimated rural residential development on Trust Lands anticipated under Alternative C would be set aside for additional

conservation opportunities. The projected rate of return on equity for Alternative B would be approximately 5.14%.

Alternative D – Focused Entitlements

Alternative D is a blending of alternatives A, B, B-1, C, and C-1 identified in the DEIS. The goal of “D” is to share proportionately with anticipated community growth (as proposed under “B”) but the philosophy of “D” is to focus more on improving land entitlements to maximize income to the trusts and comply with local, state, and federal regulations. Proactive land use planning, as particularly emphasized in Alternative C, is a central theme to achieving desired land entitlements with outcome objectives that promote good community planning. The level at which this alternative may be implemented will be dependent on the vigor of the real estate market, the position of trust lands in those growing markets, and level of staffing and associated budgets.

Tables E-5 and E-6 identify the acres of “rural residential” and “industrial/commercial” that might develop on trust lands through the life of the plan with implementation of Alternative D. These estimates are not intended to be targets that must be achieved by each of the area land offices. The actual outcome of developed acreages is dependent on the position of state trust lands in growing markets, staffing (type and number), and budgets. Successful implementation could achieve acreage numbers in the range of Alternative C in areas where trust lands are well positioned in growing markets with adequate staffing and budgets. The status-quo situation could result (with numbers similar to those identified for Alternative A) if the philosophy of D (staffing, funding, markets and position of trust lands, etc) is not accomplished. The status-quo situation may reflect low entitlements and the former (successful implementation) high entitlements, which also correspond to low and high number of acres, projects, and rates of return, respectfully. In all cases, DNRC would seek to increase the entitlements to properties that are included in the project list. The preferred goal is to match the market (as further defined in the Physical Suitability Filter) of a given land office region (philosophy of B), regardless of whether those resulting numbers may be high or low to the acreage estimates identified by alternative. An acreage “cap” is defined to trigger mandatory reevaluation of the plan if the “caps” are exceeded.

The conservation and staffing requirements are as described for Alternative B.

ALTERNATIVES – COMPARISONS AND TRADE-OFFS

The main difference between the alternatives is the relative degree to which the REMB will participate in and benefit from the expected increase of demand in land uses in Montana. Differences among alternatives relate to the philosophical approaches (emphases) to land management in responding to growth in the residential, commercial, and industrial sectors of the economy. The main tradeoffs between the alternatives include:

- **Level of staffing and expertise available** – A greater level of staffing would enable the REMB to engage in more real estate activities and therefore realize a higher benefit to the Trust.
- **Amounts of revenue generated on behalf of the Trust Land beneficiaries** – The amount of revenue would vary by alternative, with Alternative A – the Current Program

generating the least and Alternative C – Focused Portfolio generating the most. Increased initial investments in personnel and land entitlements result in a greater return on investment.

- **The extent to which various real estate tools are employed** – Alternatives B, B-1, C, C-1, and D would require greater employment of real estate tools including both land transactions and authorizations.
- **The amount of money directed to the improvement of entitlements.** – Expenditures made to improve entitlements would increase under Alternatives B, B-1, C, C-1 and D and would result in a higher return on investment. (Entitlements are land use authorizations such as those provided through local zoning ordinances and physical improvements that facilitate growth such as roads and sewer systems.)

SELECTION OF A PREFERRED ALTERNATIVE

The preferred alternative is Alternative D.

ENVIRONMENTAL EFFECTS

A systematic land suitability and project identification process would guide all project level decisions under the proposed plan alternatives. A funnel filter process defines an approach that begins with a land suitability analysis at a landscape level and moves through a series of economic and site evaluation processes to help identify lands that may have some suitability for future development or conservation opportunities. Lands generally unsuitable for developed uses would fall out early in the process. All aspects of the physical, biological, and social environment are considered. A basic assumption is that all land use proposals would ultimately be reviewed, as appropriate, under local land use regulations. Project impacts and project mitigation measures would be identified through these series of processes. MEPA compliance would also be considered for all project actions.

SUMMARY COMPARISON OF THE EFFECTS OF ALL ALTERNATIVES ON THE PROJECT OBJECTIVES AND ON THE RELEVANT ENVIRONMENTAL FACTORS

The alternatives consider growth options for “commercial”, “conservation”, “industrial”, and “residential” on school Trust Lands. In each alternative, an assumption is made that Trust Lands would share (not create) expected future growth. It is assumed that the expected growth would occur regardless; and that certain Trust Lands may actually be suitable and capable of capturing some of that expected growth. In certain situations, it could be argued that development of some Trust Lands may be more environmentally appropriate than development of non-Trust Lands. This would be the situation if development activities were forced to “leap” beyond Trust Lands to meet local development demands or if Trust Lands were better positioned for development due to favorable topography, location, and access to infrastructure. The only clear distinction of impacts relates to the management objectives of the TLMD and revenue parameters. For example, it can be assumed that increased development (including conservation) on Trust Lands would generate more revenue to the trust beneficiaries and more taxes (property and personal) to local and state agencies. Under each of the alternatives, new development potential on Trust Lands never exceeds 1% of the total Trust Land acreage through the year 2025. The percentage share of development is even less

significant when considered in the context of the entire acreage (all landowners). Table E-9 attempts to summarize the management and environmental distinctions between alternatives without consideration of the broader context of land use development on non-Trust Lands.

Table E-9. Summary Comparison of Effects

	Alternatives					
	A	B	B-1	C	C-1	D
Growth By Land Use Type						
Residential	+	++	+	+++	++	++
Commercial	+	++	++	+++	+++	++
Industrial	O	+	+	+	+	+
Conservation	+	+	++	+	+++	++
Growth By Location						
Urban	O	+	+	++	++	++
Suburban	O	+	+	++	++	+
Rural	O	+	O	++	+	+
Project Selection by DNRC						
Reactive	O	+	+	+	+	+
Proactive	O	+	+	++	++	++
Real Estate Tools						
Leases	O	+	+	++	++	++
Licenses	O	+	+	+	+	+
Easements	O	+	+	+	+	+
Land Banking	O	+	+	++	++	+
Land Exchanges	O	+	+	++	++	+
Land Sales	O	+	+	+	+	+
Joint Ventures	O	+	+	++	++	++
Marketing	O	+	+	++	++	+
Property Purchases	O	+	+	++	++	+
Project Management Roles						
DNRC	O	+	+	++	++	++
Developer	O	+	+	+	+	+
Local Government	O	+	+	+	+	+
Partnerships	O	+	+	++	++	++
Administrative Support						
Staffing	O	+	+	++	++	+
Funding	O	+	+	++	++	+
Statutory Authorizations	O	+	+	+	+	+
Financial						
Revenue to Trust	+	++	+	+++	++	++
Tax Revenue	+	++	+	+++	++	++
PILT	O	O	O	O	O	O
Job Creation	O	+	O	++	+	+
Asset Management	O	+	+	++	++	+
Environmental Review						

Table E-9. Summary Comparison of Effects

	Alternatives					
	A	B	B-1	C	C-1	D
Local Land Use Regulations	+	+	+	+	+	+
MEPA	+	+	+	+	+	+
Environmental Affects						
Geology & Soil	O	+	+	+	+	+
Water Resources	O	O	O	O	O	O
Fisheries	O	O	O	O	O	O
Wildlife	O	+	+	+	+	+
Vegetation	O	+	+	+	+	+
Air Quality	O	+	+	+	+	+
Noise	O	+	+	+	+	+
Aesthetics	O	O	O	O	O	O
Cultural	O	O	O	O	O	O
Community Infrastructure	O	O	O	O	O	O
Taxes	O	+	+	++	++	+
Note: O = current condition; + = elevated and relative impact from current condition						

DNRC has used available environmental data concerning the existing Real Estate Management Program to predict environmental effects associated with each alternative. The affected environment is described in Chapter 3 of the PEIS and the prediction of effects on environmental resources is described in Chapter 4.

Summary Table of Predicted Attainment of Objectives

Table E-10 depicts the degree to which each Alternative Meets Project Objectives

Table E-10. Summary of Predicted Attainment of Objectives						
Objective	A	B	B1	C	C1	D
Objective 1	+	++	+	+++	++	++
Objective 2	+	+	+	+	+	+
Objective 3	O	+	+	+	+	++
Objective 4	O	+	+	+	+	+
Objective 5	O	+	+	+	+	+
Objective 6	O	+	+	+	+	++
Objective 7	O	+	+	++	++	++

Note: "O" indicates a status quo relationship and + indicates a strong relationship

RELATIONSHIP OF ALTERNATIVES TO ISSUES RAISED IN THE SCOPING PROCESS

Based on comments received and on prior experience with the administration of the Real Estate Management Bureau, the DNRC staff identified the following issues for evaluation in this PEIS:

1. In order to meet its fiduciary responsibilities to the beneficiaries, the DNRC must increase revenue associated with the management of commercial, industrial, residential and conservation uses on Trust Lands.
2. The REMB is managing land uses in a reactive manner without the benefit of well-defined planning process or decision making framework.
3. The REMB currently lacks a methodology for determining the suitability of land for the development of the various uses under its jurisdiction.
4. A successful real estate program will rely on a close association with local land use planning and regulatory processes.
5. The relationship of the statutory requirements under MEPA to the selection and development of projects on Trust Lands is unclear.
6. There is a need to identify opportunities for Categorical Exclusions (CE's), as provided under MEPA, consistent with the purpose for development of a programmatic plan (ARM 36.2.522(5))
7. The REMB requires guidance in addressing the growth inducing impacts of development of commercial, residential and industrial uses on Trust Land
8. The REMB requires guidance in addressing the impacts of growth with respect to transportation, air quality, noise, and other environmental concerns.
9. The REMB requires guidance in addressing open space and wildlife habitat needs while providing income for trust beneficiaries.
10. The filter process should include biological filters and clearly define relationships to local land use regulations.
11. DNRC needs to track costs of the program, not just revenue.
12. The Plan should identify lands that would be developed.
13. The REMB should be proactive in project identification and project involvement to ensure desired land uses outcomes.
14. Development on trust lands should not be subsidized by the state or by local jurisdictions.

Table E-11 summarizes how these issues are reflected in the design of the alternatives presented in this chapter.

Table E-11. Issues As Addressed by Alternatives								
Issue #	Alternatives						Document Reference by Section	Supportive Statement
	A	B	B-1	C	C-1	D		
1	O	++	+	+++	++	++	2.3, 2.6.2, 2.6.3, 2.6.4, 2.6.5, 2.9.1, 3.2.3, 3.2.4, 3.2.5, 4.1.3, 4.2.3, 4.2.4	All action alternatives provide for increased revenue to the beneficiaries. Increased revenue is linked to market share of residential, commercial, and industrial uses.
2	O	+	+	+	+	++	2.1, 2.3.1, 2.6.2, 2.6.3, 2.6.4, 2.6.5, 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2	The funnel filter analysis and project selection process provide a framework for decision-making for all action alternatives. All alternatives require compliance with local land use regulatory processes.
3	O	+	+	+	+	+	2.1, 2.3.1, 2.6.2, 2.6.3, 2.6.4, 2.6.5, 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2	The funnel filter process includes a landscape assessment of general land suitability and a demographic and market analysis to link growth objectives to regional market conditions. Other layers of the filter process are project level evaluations that help to further narrow land use options.
4	O	+	+	++	++	++	2.3.1, 2.6 (all subsections), 3.2.4, 3.2.6, 4.1, 4.1.3, 4.2.5, 4.2.6, 4.2.7, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 4.2.15, 4.3, 5.2, 5.3	An underlying premise of all alternatives, including the current program is that the REMB would work with local government land planning and regulatory processes.
5	O	+	+	+	+	++	2.3.1, 2.6 (all subsections), 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2, 5.2, 5.3, 5.3	Under all the action alternatives, potential and proposed projects will be subject to a well-defined funnel filtration process that will address a variety of site suitability issues. Through local land use regulatory processes, the REMB will meet a substantial portion of its responsibility under MEPA. MEPA remains the final check before DNRC approves a project.
6	O	+	+	+	+	+	2.3.1, 2.6 (all subsections), 3.2.4, 3.2.6, 4.1, 4.1.3, 4.2.5, 4.2.6, 4.2.7, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 4.2.15, 4.3, 5.1	Compliance with local land use regulatory processes will, in certain cases, address most of the Department's responsibilities under MEPA and support rationale for a more simplified MEPA document. Chapter 5 provides good documentation of this relationship.

Table E-11. Issues As Addressed by Alternatives

Issue #	Alternatives						Document Reference by Section	Supportive Statement
	A	B	B-1	C	C-1	D		
7	O	++	++	++	++	++	2.3.1, 2.6 (all subsections), 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2, 5.2, 5.3	An underlying assumption is that Trust Lands will share in expected community growth. The funnel filter analysis provides a framework for decision-making for all action alternatives regarding growth inducing impacts, such as sprawl. Local regulatory review of DNRC projects would address many of the growth inducing issues of development within the broader community.
8	O	+	+	+	+	+	2.3.1, 2.6 (all subsections), 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2, 5.2, 5.3	The funnel filter analysis provides a framework for decision-making for all action alternatives with respect to overall environmental concerns. The funnel process includes both physical and biological filters plus site review criteria and market analysis. Review and approval of projects at the local government level would, in many instances, address these and other issues.
9	O	+	+	+	+	++	2.3.1, 2.6 (all subsections), 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2, 5.2, 5.3	The funnel filter analysis provides a framework for decision-making for all action alternatives with respect to wildlife and habitat protection. Coordination between the HCP and the SFLMP is also anticipated. None of the 6 alternatives limit opportunities for securing conservation rights on trust lands.
10	+	+	+	+	+	+	2.3.1, 3.2.6, 4.1, 4.14, 4.1.5, 4.2.8, 5.2, 5.3	The funnel filter is a performance based filter wherein certain lands are initially identified as being generally unsuitable for development, such as steep slopes and flood plains. The Final EIS includes 2 additional biological filters that would generally preclude most developed activities within the grizzly bear recovery areas of HCP lands and portions of lands adjacent to core bull trout streams. Local land use regulations and other state and federal regulations would recognize other biological filters.

Table E-11. Issues As Addressed by Alternatives								
Issue #	Alternatives						Document Reference by Section	Supportive Statement
	A	B	B-1	C	C-1	D		
11	+	+	+	+	+	+	2.6.6, 2.9.1, 3.2.5, 4.2.3, 4.3	The selected plan would include a monitoring program that tracks revenues and costs. The rates of return analyses consider both “costs” and “revenues”.
12	+	+	+	+	+	+	1.1.2, 1.1.4, 1.5.3, 2.3.1, 2.6.6, 2.9.3, 2.9.5, 3.1, 4.1.5	The plan is programmatic; not an analysis of specific parcels or specific projects. The Plan provides a systematic approach for identifying project level opportunities. The plan selection process establishes a 1, 3, and 5 year project lists.
13	+	++	++	+++	+++	++ ++	2.6.1, 2.6.2, 2.6.6, 2.8, 2.9.4, 4.1.4, 4.2.4, 5.2	Most of the alternatives and Alternative D, in particular, attempt to offer a proactive strategy for identifying project level opportunities. Outcome objectives are generally defined by local project review and approval, through the establishment of land entitlements, and through RFP and joint venture processes.
14	O	O	O	O	O	O	2.3.1, 2.6.1, 2.6.2, 2.6.4, 2.6.6, 2.8, 2.9.2, 2.9.4, 2.9.7, 4.1.4, 4.2.4, 4.2.15, 4.2.16, 4.2.17, 5.2	The REMB intends to adhere to all local land use regulations including those that require development standards, impact fees, and such. Commercial and industrial uses would pay beneficial use taxes at the same rate as private lands.

CATEGORICAL EXCLUSIONS (CE's)

DESCRIPTIONS OF ACTIONS WHERE CATEGORICAL EXCLUSIONS WOULD BE CONSIDERED

As described in Chapter 5, CE's are appropriate in those situations where no significant impact will occur as a result of the exemption and as provided for in MCA 77-1-121. The level of MEPA review will be commensurate with DNRC's obligations under MCA 77-1-121 recognizing local governmental actions and associated analysis when appropriate.

Chapter 5 also details local government regulations and resulting actions, the level of analysis associated with those actions, and how they interrelate to satisfy MEPA requirements. Table E-12 lists those situations when categorical exclusions from MEPA documentation would be pursued under all alternatives.

Table E-12. MEPA Exclusions/Exemptions – When Considered/Applied
Exempt per 36.2.523(5) A.R.M.
Lease and License administration including assignments, renewals and enforcement of terms and conditions
Lease/License modifications consistent with local regulations or MEPA document
Project Design
REMB Project List
Marketing
Administrative actions: routine, clerical or similar functions of a department, including but not limited to administrative procurement, contracts for consulting services, and personnel actions
Minor repairs, operations, or maintenance of existing equipment or facilities
Investigation and enforcement: data collection, inspection of facilities or enforcement of environmental standards
Ministerial actions: actions in which the agency exercises no discretion, but rather acts upon a given state of facts in a prescribed manner
Actions that are primarily social or economic in nature and that do not otherwise affect the human environment
Exempt per 77-1-121, M.C.A.
Development or adoption of a growth policy or a neighborhood plan pursuant to Title 76, chapter 1
Development or adoption of zoning regulations
Review of a proposed subdivision pursuant to Title 76, chapter 3
Actions related to annexation
Development or adoption of plans or reports on extension of services; and Other actions that are related to local planning
Property Purchase
Short-term land use license (less than 7 days) involving no resource extraction or developed uses and conformity with applicable local permitting or land use regulations. Examples would include weddings, dog shows, photography shoots, charity fund raising events, etc.

Preface

While serving as Governor of Virginia, Thomas Jefferson drafted the Bill for the General Diffusion of Knowledge, which stated, "...those persons whom nature hath endowed with genius and virtue should be rendered by liberal education worthy to receive, and able to guard the sacred deposit of the rights and liberties of their fellow citizens, and that they should be called to that charge without regard to wealth, birth, or other accidental condition or circumstance...." The U.S. Congress, following Thomas Jefferson's vision for a publicly-educated society, which was deemed necessary for a republican form of government, established the policy of granting land for the support of schools in new states with the General Land Ordinance of 1785. Land grants to states originally only included section 16 within each township, but were later expanded to sections 16 and 36 in 1848, and sections 2, 16, 32, and 36 in 1896. Additionally, some states were granted lands "in lieu of" sections 16 or 36 when those sections were already occupied or privately owned. The Enabling Act of 1889, under which Washington, North Dakota, South Dakota, and Montana were admitted to the Union, states, "That upon admission of each of said states into the Union, sections numbered sixteen and thirty-six in every township of said proposed states ...are hereby granted to said states for the *support of common schools...*"

When Montana became a state through the Enabling Act, the U.S. Congress granted to the State of Montana sections sixteen and thirty-six in every township within the state for common school support. Some of these sections had been homesteaded, some were within the boundaries of Indian reservations, and yet others were otherwise disposed of prior to the passage of the Enabling Act. To make up for the loss and in lieu thereof, other land was selected by the state. In addition to the common school grant, the Enabling Act and subsequent acts granted acreage for other education and state institutions. The Constitution of the State of Montana states in Article X that "All lands of the state ...granted by congress ...shall be *public lands of the state*. They shall be *held in trust for the people* ...for the respective purposes for which they have been or may be granted." Section 4 of Article 10 establishes the Board of Land Commissioners (Land Board) to oversee the management of Trust Land (MCA 77-1, Part 2). The Land Board consists of the statewide elected officials: Governor, Attorney General, Auditor, Secretary of State, and Superintendent of Public Instruction.

The original common school grant totaled 5,188,000 acres. The additional acreage provided for other endowed institutions included 668,720 acres, for a total of 5,856,720. These acreage figures have fluctuated throughout the years due to land sales and acquisitions. Surface acreage in Fiscal Year (FY) 2003 totals approximately 5.2 million acres. The Enabling Act provided that the proceeds from the sale and management of any Trust Land constitute permanent funds for the support and maintenance of the public schools and various state institutions. Rentals received on leased land, interest earned on the permanent fund, and all other income is distributed annually to the schools and institutions.

In the state of Montana, Trust Lands are managed by the Trust Land Management Division (TMLD) of the Montana Department of Natural Resources and Conservation. The mission

of the TMLD is to “manage the State of Montana’s Trust Land resources to produce revenues for the Trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land.” Both the Enabling Act and Montana Constitution require compensation at “full market value” for disposition of Trust Lands. The Division manages these lands through a variety of mechanisms including leases for grazing, agriculture, mineral development, oil and gas development, timber harvest, and “other uses”. Other uses include lands used for residential, commercial, industrial, and conservation purposes. Approximately 90 percent of the Trust Land surface ownership is dedicated to the Common Schools (K-12), with the remaining 10% shared by nine other trust beneficiaries. Revenue generated from land management activities and interest earned from the Permanent Fund and distributed to the Common Schools totaled \$43.6 million, representing about 10 percent of the FY 2003 state-funded school budget.

Within the Trust Land Management Division, the Real Estate Management Bureau (REMB) is responsible for residential, commercial, industrial, and conservation uses on Trust Lands. The REMB is also responsible for the management of secondary uses (licenses) on agricultural, timber and grazing lands and for transactions involving land exchanges, land sales, and land acquisitions.

Applicable Regulatory Requirements

The REMB program is subject to a vast array of laws and rules at the federal, state, and local levels. The purpose of this section is not to be encyclopedic by describing all possible law scenarios but, instead, to highlight the major category of laws that would apply to real estate actions. In a general sense, the real estate management program would operate in the same legal context as the private sector with additional compliance to MEPA.

Federal Laws – Most of the applicable federal laws have state laws as counterparts, including laws related to air and water quality. Another category of federal law with some applicability to Trust Lands would be the Federal Endangered Species Act. The State Forest Management Plan (SFLMP 1996) has previously summarized these and other laws.

State laws – Title 75 of the Montana Code Annotated is a compilation of the laws that have applicability to environmental protection. Other land resource laws, including planning, zoning, and subdivision laws, are included in Title 76 of the Montana Code. Laws specific to state-owned lands are included in Title 77 of the Montana Code. Local governments, such as counties and cities, implement state laws through local ordinances and are the principal entities that regulate local land use proposals through regulations related to growth policies, zoning, subdivision review, and extension of utility services. Programmatic review under the Montana Environmental Policy Act is guided by 36.2.537, Administrative Rules of Montana.

- Trust Land Development Authority - As a statement of policy under Montana law: “It is in the best interest and to the great advantage of the state of Montana to seek the highest development of state-owned lands in order that they might be placed to their highest and best use and thereby derive greater revenue for the support of the common schools, the university

system, and other institutions benefiting therefrom, and that in so doing the economy of the local community as well as the state is benefited as a result of such development” (77-1-601,MCA).

- Montana Environmental Policy Act (MEPA) Analysis – In most situations, a MEPA analysis (75-1-101 et seq) is required whenever DNRC is proposing to issue a sale, exchange, right-of-way, easement, placement of improvement, lease, license, or permit or is acting in response to an application for authorization for such a proposal (77-1-121, MCA). As applicable to land use proposals, in particular, the MEPA analysis would begin following local review of the proposal and prior to final approval and authorization by DNRC. Local governments consider multiple environmental factors when developing land use regulations or reviewing land use proposals. Many of the public involvement and environmental review processes common to local government review are similar to those required under MEPA. Under all alternatives of this EIS, it is assumed that DNRC would follow local land use regulatory processes. By so doing, local governments become the initial decision-maker on most project proposals on Trust Lands. The local land use review processes would evaluate projects in relationship to uses, local policies, and environmental suitability. MEPA analysis would benefit from tiering to the local review process.

Local Land Use Policies and Regulations – Growth in the private sector is largely regulated by local land use regulatory processes that reflect local community values, design guidelines, and infrastructure capacities. Growth of commercial, industrial, and residential uses on Trust Lands would be subject to local review as applicable. Local government processes may include:

- Developing or amending growth plans;
- Participating in or initiating zoning and/or subdivision review;
- Pursuing annexation and development agreements; and,
- Participating in other processes where there is the possibility of increasing revenue for the trust beneficiaries.
- Projects proposed on state Trust Lands would be reviewed in accordance to all applicable regulatory processes. The appropriate MEPA analysis would follow the local land use approval process or prior to issuance by DNRC of any land use authority.

Administrative Framework

The management of Trust Lands for the benefit of Montana’s schools is the responsibility of the Montana Department of Natural Resources and Conservation under the general authority of the Board of Land Commissioners.

- The Board of Land Commissioners –The Board of Land Commissioners has general authority, direction, and control over the management, and disposition of state lands...(77-1-202,MCA). This includes the

authorization to lease Trust Lands for uses other than agriculture, grazing, timber harvest, or mineral production...or sell, exchange, or lease lands.... when, in the Board's judgment, it is advantageous to the state to do so in the highest orderly development and management of state Trust Land (77-1-204, MCA).

- DNRC – The management agency for Montana's Trust Lands is the Trust Land Management Division (TMLD or Division) of the DNRC. The TMLD was established in June 30th, 1995 through a legislative reorganization of Montana's natural resource agencies. The Division was further divided into four management bureaus – Agricultural and Grazing, Forest, Minerals, and Special Uses. The Special Uses Management Bureau, established in 1996, addressed those land uses on state Trust Lands classified as "other". In 2004, the Special Uses Management Bureau became the Real Estate Management Bureau (REMB). The role of the REMB within the Division is to seek revenue opportunities on lands that are principally valuable for uses other than grazing, crop production, timber production, or watershed protection. By authority of statute and rules, the TMLD generates revenue from commercial, conservation, industrial, and residential uses by land use authorizations using leases and licenses and through property transactions involving sales, exchanges, and easements. Commercial leasing of state land is specifically provided by 77-1-901 et seq, MCA. Other laws/rules establish specific processes for each of these land use authorizations, such as easements (77-2-101, MCA), exchanges (77-2-201, MCA), sales (77-2-301, MCA). The TMLD manages approximately 5.2 million acres of surface land in addition to more than 6 million acres of sub surface rights. Four bureaus coordinate activities to manage a portfolio consisting of income from (1) grazing, (2) agriculture, (3) minerals, and (4) real estate. The Real Estate Management Bureau would follow guidance offered by the plan selected through this EIS process. The Agriculture and Grazing Bureau and Minerals Bureau are guided by administrative rules. The Forest Management Bureau is guided by the rules adopted from the State Forest Land Management Plan (SFLMP). Other relevant documents to the real estate program include local government land use policies and regulations.
- Judicial Rulings – There are numerous judicial rulings that help to clarify the intent and purpose of Trust Lands. Notable cases include:
 - Toomey v. State Board of Land Com'rs (1938), 106 Mont. 547, 559, 81 P.2d 407, 414; State v. Stewart (1913), 48 Mont. 347, 349, 137 P. 854, 855. The Montana Supreme Court has declared that:

The state board of land commissioners, as the instrumentality created to administer that trust, is bound, upon principles that are elementary, to so administer it as to secure the largest measure of legitimate advantage to the

beneficiary of it." *Stewart*, 48 Mont. at 349-50, 137 P. at 855. The State Board of Land Commissioners (hereafter, the Board) "owe[s] a higher duty to the public than does an ordinary businessman.

- State v. Babcock (1966), 147 Mont. 46, 54, 409 P.2d 808, 812.
As a trust, the management of State trust lands is subject to several common law fiduciary trust duties. One fiduciary duty is to make trust property productive. See "Restatement of Law, Trusts 2nd" at §181 at p. 391: "A trustee of land is normally under a duty to lease it or to manage it so that it will produce income". This general trust duty is further reflected in the provisions of numerous state statutes applicable to the management of state trust lands. See, Sections 77-1-202; 77-1-204(2); 77-1-209; 77-1-216; 77-1-601; and 77-5-116, MCA. Consequently, it is improper to consider a program alternative that conflicts with the State's fundamental fiduciary duty to prudently produce a constant stream of revenue from trust assets.

Chapter 1

Purpose and Need for the Proposed Action

Introduction and Purpose of the Chapter

The Trust Land Management Division (TLMD) of the Montana Department of Natural Resources and Conservation (DNRC or the Department) has developed a Programmatic Environmental Impact Statement (PEIS or EIS) to analyze and disclose impacts, and compare alternative management strategies of real estate uses and activities on state trust lands. The preferred alternative from the PEIS will become the Real Estate Management Plan (Plan). The Plan will provide the Division's Real Estate Management Bureau (REMB) with consistent policy, direction and guidance in its management of real estate activities on the state's 5.2 million acres of Trust Lands. The Division is divided into four bureaus: Forest Management, Mineral Management, Agriculture and Grazing Management, and Real Estate Management. The Agriculture and Grazing Bureau and Minerals Bureau are guided by administrative rules. The Forest Management Bureau is guided by the rules adopted from the State Forest Land Management Plan (SFLMP). This Plan will only address management activities of the REMB.

Chapter One of this PEIS describes the scope, purpose and need for the Real Estate Management Plan. It sets forth the objectives of the Plan as well as the associated issues that in turn form the basis for decision making and for the development of various alternative planning approaches presented in Chapter 2 of the PEIS.

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1.1 PURPOSE OF THE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (PEIS)

The purpose of this PEIS is to identify and evaluate alternative strategies for performing the program responsibilities of the REMB. The Bureau is charged with the management of commercial, conservation, industrial and residential uses on Trust Lands for the benefit of the public schools, Kindergarten through 12th grade and the Montana University system. A preferred alternative will be selected through the Environmental Impact Statement process of the Montana Environmental Policy Act (MEPA) and the selected alternative will become the Real Estate Management Plan, the guiding framework for real estate decisions on state trust lands. In keeping with this purpose, essential components of this PEIS are to:

- Identify the roles, duties, and purpose of the REMB.
- Identify a systematic process for proposing and evaluating land use proposals on school trust lands;
- Evaluate the social, economic, and environmental effects of alternative plan philosophies; and
- Select a preferred plan to guide the decisions of the REMB.

1.1.1 Who Has Initiated this Process?

The DNRC has initiated the PEIS process in order to select a “plan” to clarify the future management philosophy of the REMB and to provide a framework for future decision-making. The REMB is one of four Bureaus within the Division, which is guided by a mission and fiduciary responsibility to generate revenue on behalf of the beneficiaries of the Trust Lands including public schools, K-12th grade and the state’s universities. This is accomplished through the management of almost 5.2 million surface acres (plus subsurface rights) of Trust Lands granted to the State of Montana at statehood by the federal government. More particularly, the REMB is responsible for generating revenue from real estate activities on Trust Lands related to commercial, conservation, industrial, and residential land uses.

1.1.2 What is the Proposed Action?

The TLMD intends to develop a programmatic Real Estate Management Plan (Plan) that will enable the REMB to implement consistent policy, direction and guidance in its management of real estate activities on Trust Lands. It will provide the general philosophy and approach to real estate management, which will in turn serve as the framework for project-level decision making. Individual activities of the REMB would be subject to the provisions set forth in the Montana Environmental Policy Act (MEPA).

1.1.3 To What Areas will the Plan Apply?

The Real Estate Management Plan will have application to the entire surface holdings of the TLMD, approximately 5.2 million acres statewide. The lands are,

and will continue to be managed by six land offices, geographically distributed across the state.

1.1.4 What will the Plan not Address?

The Plan will not determine any specific real estate program or project. It will not address site-specific issues nor will it make specific land use allocations.

1.1.5 What Time Period will be Addressed by the Plan?

The selected Real Estate Management Plan will apply through the year 2025. However, the Plan will contain provisions for updates and revisions over time to reflect changing conditions.

1.2 NEED FOR THE ACTION

The REMB manages programs and processes for the issuance of leases, licenses, and easements, the exchange of Trust Lands for private and federal lands, and the sales and purchases of Trust Lands. The REMB is facing critical challenges in fulfilling these land management responsibilities. In particular, these challenges can be expressed in the following two problem statements:

- The face of Montana is changing. While certain areas of the state are enduring economic decline, other are experiencing rapid growth. For those State Trust Lands located in areas of high growth, opportunities exist to garner greater income on behalf of the Trust Land beneficiaries. To ignore these opportunities would be contrary to the TMLD's mandate and fiduciary responsibilities to produce revenue for the school trusts.
- As a newly created Bureau, the REMB is currently without clear policies and guidelines for decision-making. Residential, commercial, industrial and conservation activities on Trust Lands have occurred under a process that has evolved since the inception of the Bureau (1996) and the addition of planning staff to the Land Offices. In recent years, most development opportunities on Trust Lands have been focused in urban locations.

1.3 THE OPPORTUNITIES

1.3.1 The School Funding Opportunity

In recent years, the people of the State of Montana have become increasingly concerned about the level of funding for public education. This concern came to light in a recent Montana District Court decision (April, 2004), that found Montana

is violating its own Constitution by failing to adequately fund public education and must have a new financing plan in place by October of 2005. Although the final disposition of the case is not clear, the contribution that Trust Lands can make to the school funding base, will become increasingly important as the state struggles with finding sources of revenue to address school funding needs.

1.3.2 The Economic Opportunity

The Montana economy is becoming increasingly dependent on non-resource based industries. According the U.S. Bureau of Economic Analysis, the largest industries in Montana in 2001 were services, constituting 27.7 percent of earnings; state and local government, 14.9 percent; and retail trade, 11.3 percent. Of the industries that accounted for at least 5 percent of earnings in 2001, the slowest growing from 2000 to 2001 was federal civilian government (5.7 percent of earnings in 2001), which increased 0.6 percent; the fastest was state and local government, which increased 11.0 percent (Regional Economic Information System, Bureau of Economic Analysis, April 2003).

Grazing lands comprise almost 80 percent of the total surface acres managed by the TLMD. Agricultural (farming) land comprises about 11 percent of the total surface acres, forested acres comprise about 9 percent of the total land base, with other uses (cabin sites, residential housing, commercial and industrial leases, and conservation) comprising less than one percent of the land base. While the greatest amount of revenue generated from Montana's Trust Lands is from agriculture and grazing, the net return per acre on grazing lands is the lowest. Conversely, while less than one percent of the land base is in classified "other" uses, the return per acre is the highest. Table 1-1 summarizes the net revenue per acre for each of the various surface uses.

Table 1-1. Trust Land Net Revenue per Surface Acre for 2003			
Bureau	Acres Managed	2003 Revenue	Net Revenue Per Acre
Grazing	4,062,911	\$5,036,377	\$1.25
Agriculture	569,657	\$8,036,597	\$14.00
Forest	480,368	\$3,138,699	\$6.53
Other (Real Estate)	22,071	\$1,206,388	\$54.83
TOTAL	*5,161,513	\$17,418,061	\$3.37

*Rounding errors affect Total

Trust lands that are in close proximity to areas of high growth are well positioned to take advantage of opportunities in the commercial service and residential sectors of the economy.

1.4 OBJECTIVES

The Division used the following objectives to develop this plan. These objectives were used throughout the PEIS process to design alternatives, to eliminate unreasonable alternatives, and will be used to select a preferred alternative.

- Generate increased revenue for trust beneficiaries greater than current levels
- Comply with the Montana Environmental Policy Act (MEPA) requirements for developing a programmatic plan, DNRC's administrative procedures regarding MEPA (ARM 36.2 et. Seq.) and the Montana Antiquities Act (MCA 22-3-424), in their most current form
- Provide a more effective and efficient decision-making framework for real estate management that includes a strategic vision and philosophy for future management.
- Simplify the project level evaluation process
- Protect the long-term viability of Trust Land for uses other than agriculture, grazing and timber.
- Provide an opportunity for public involvement in decisions affecting residential, commercial, industrial and conservation uses
- Develop ways to work more closely with local government processes and policies.

1.5 THE PUBLIC INVOLVEMENT AND EIS PROCESS

The programmatic planning process was initiated with a public release of an initial proposal in 2001. Issues identified through this external process and an internal evaluation (scoping) process were used to help develop a DEIS, which included five plan alternatives. The DEIS was released for a 60 day public review process in June 2004. Comments received through the DEIS process were considered and incorporated as appropriate into the release of this Final EIS.

1.5.1 Initial Proposal Process

A PEIS planning team, consisting of staff members of the TLMD prepared an Initial Proposal for the scoping process (see the List of Preparers). The Initial Proposal described the purpose and need for the PEIS and listed issues for possible consideration. This document also described current processes of the REMB and two initial alternatives – the no-action or status quo alternative and a proposed alternative.

During the development of the initial proposal, the Division compiled several mailing lists, including a general mailing list of persons, agencies and interest groups

who commented on previous DNRC statewide issues, a mailing list of the fifty-six (56) Montana County Commissioners, Montana planning offices, Montana Association of Planners (MAP), county and district school superintendents and the Land Board and Land Board staff. These initial mailing lists totaled approximately one thousand (1,000) entries. The Division mailed a newsletter announcing the availability of the initial proposal to everyone on this mailing list in January, 2001, including a return addressed request form to mail if they wanted to receive a copy of the initial proposal. The TLMD also published display ads in Montana newspapers (the Montana group), and an electronic version was also posted on the DNRC website.

The Division opened the public comment period for the initial proposal on Monday, January 8, 2001. The public comment period lasted 109 days and closed on Friday, April 27, 2001. The TLMD also held the several public scoping meetings to present the Initial Proposal and ask for public comment. Press releases were issued the week prior to the meetings. The meetings consisted of a one-half hour PowerPoint© presentation, followed by a question and answer session. Comments were not recorded at these meetings; attendees were asked to submit their comments in writing. These public scoping meetings were held at the following locations and dates:

Table 1-2. Public Scoping	
DATE	LOCATION
5 March 2001	Billings
6 March 2001	Miles City
7 March 2001	Lewistown
8 March 2001	Bozeman
27 March 2001	Kalispell
28 March 2001	Missoula
29 March 2001	Helena
19 April 2001	Great Falls

The same PowerPoint© presentation was provided to the Land Board in Helena on April 16, 2001. As a result of the newsletter, 161 persons requested copies of the 65-page Initial Proposal by mail, phone, fax, or e-mail. Comments on the Initial Proposal were received from 83 persons. A total of 65 persons attended the public scoping meetings. All comments received were from within the state of Montana, except for one from Racine, Wisconsin. Responses came from the following counties: Cascade (10), Flathead (16), Gallatin (4), Jefferson (1), Lake (5), Lewis and Clark (7), Madison (3), Meagher (1), Missoula (16), Phillips (1), Ravalli (6), Sanders (2), Silver Bow (4), Stillwater (1), Teton (1), Yellowstone (5). The EIS planning team then carefully reviewed all comments and grouped them into relevant major issue categories. These issue categories were used to develop the alternatives described in the following sections of this draft PEIS.

The TLMD staff was offered an opportunity to identify issues related to the development of the PEIS in a session conducted for that purpose in October 2003. An additional opportunity for comment by TLMD personnel was offered in the spring of 2004 prior to the release of the DEIS.

A follow-up newsletter was sent to a mailing list of 600 individuals/agencies in February 2004 to inform the interested public of progress being made towards preparation of the Draft Environmental Impact Statement. The newsletter included a timeline for completing the EIS process and general assumptions for identifying alternative plan scenarios.

Comments identified through this initial proposal process are summarized in Appendix A-1

1.5.2 Issues Identified

Based on comments received and on prior experience with the administration of the Real Estate Management Bureau, the DNRC staff identified the following issues for evaluation in the DEIS:

- In order to meet its fiduciary responsibilities to the beneficiaries, the DNRC must increase revenue associated with the management of commercial, industrial, residential and conservation uses on Trust Lands.
- The REMB is managing land uses in a reactive manner without the benefit of well-defined planning process or decision making framework.
- The REMB currently lacks a methodology for determining the suitability of land for the development of the various uses under its jurisdiction.
- A successful real estate program will rely on a close association with local land use planning and regulatory processes.
- The relationship of the statutory requirements under MEPA to the selection and development of projects on Trust Lands is unclear.
- There is a need to identify opportunities for Categorical Exclusions (CE's), as provided under MEPA, consistent with the purpose for development of a programmatic plan (ARM 36.2.522(5))
- The REMB requires guidance in addressing the growth inducing impacts of development of commercial, residential and industrial uses on Trust Land
- The REMB requires guidance in addressing the impacts of growth with respect to transportation, air quality, noise, and other environmental concerns.
- The REMB requires guidance in addressing open space and wildlife habitat needs while providing income for trust beneficiaries.

1.5.3 Issues Eliminated from Detailed Study

The Division staff eliminated some issues from detailed study in the DEIS because they were outside the scope of the plan. Other issues were eliminated because other

statutes, administrative rules, plans, or policies address them, or they are legally constrained. The explanation for the elimination of these issues from detailed study are listed below:

- The plan would not address all management activities occurring on Trust Land, such as agricultural or grazing leases, mineral leases, timber management activities, or other uses, including issuance of utility or driveway easements, general recreation licenses, and miscellaneous permits. These activities are addressed by other statutes, administrative rules, plans, and policies, and are outside the scope of the plan.
- Alternatives considered must be within the authority of the DNRC to implement. The plan would not evaluate alternatives that require changes in the Enabling Act or Montana Constitution. Such changes are beyond the authority of DNRC to implement and therefore beyond the scope of the plan.
- The plan would not address site-specific uses or activity locations. Rather, it would contain the general management philosophy that guides project-level decisions.
- The plan would not consider several types of actions as specified in ARM 36.2.523(5), such as administrative actions, routine or clerical activities, minor repairs, operations or maintenance of existing equipment or facilities, investigation, enforcement and data collection, ministerial actions, etc.
- The plan would not address the general recreational use program, as described in MCA 77-1-801 et. seq. and ARM 36.25.143 – 167.
- The process to reclassify Trust Land, as described in MCA 77-1-401 – 404, would not be addressed by the plan.

Issues identified by the public that were related to the above were also eliminated from detailed study and not analyzed further.

1.5.4 DEIS Release

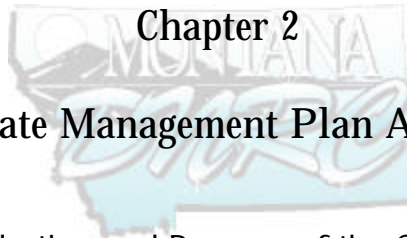
The Land Board was notified of the pending release of the DEIS during their regularly scheduled meeting of June 2004. The Draft EIS was released for a 60 day public comment period on June 21, 2004. The general public and specific interest groups were notified of the release through a variety of strategies including personal notification by letter, direct mailings of the DEIS to specific individuals/organizations, press releases to local and statewide media, posting of the DEIS on the DNRC web site, public open houses at five locations throughout the state, and legal notices. Appendix A-2 includes information concerning the public notice process, including names of those individuals/agencies receiving direct notice of the DEIS and those receiving hard copies of the DEIS.

Written comments were received from 15 individuals and/or interest groups. Follow-up meetings were held with representatives of the Montana Environmental Information Center, Montana Smart Growth Coalition, and the Sonoran Institute to clarify comments received by those organizations. The specific letters and responses

to grouped categories of common comments are included in Appendix A-3. The responses are intended to provide clarification to the EIS and are incorporated by reference into the Final EIS. The Final EIS also reflects specific edits from the DEIS where appropriate, in response to the comments.

1.6 THE DECISION THAT MUST BE MADE

The EIS offers alternative real estate management “plans” for the REMB. The decision to be made is choosing the alternative that best satisfies the needs and objectives described in Sections 1.2 and 1.4. The Director of DNRC is the decision-maker for this programmatic plan. The Director will evaluate the alternatives to determine which alternative generated from the programmatic EIS process best meets the Division’s mission statement and objectives of the plan. The Director of DNRC has decision-making authority for the PEIS. The Land Board will have ultimate authority to implement the Real Estate Management Plan.



Chapter 2

Real Estate Management Plan Alternatives

Introduction and Purpose of the Chapter

Chapter 2 presents alternative approaches to real estate management on Montana's Trust Lands. The selected alternative will become the Real Estate Management Plan for the TLMD. Six alternatives are proposed including the no-action alternative, which reflects the existing or status quo program of the REMB. Information presented includes a comparative analysis of the alternatives and a summary of the anticipated effects. The alternatives have been developed in response to and are driven by the issues raised by the public and the DNRC staff. Chapter 2 includes a summary of how the issues are reflected in each of the alternatives.

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2.1 INTRODUCTION

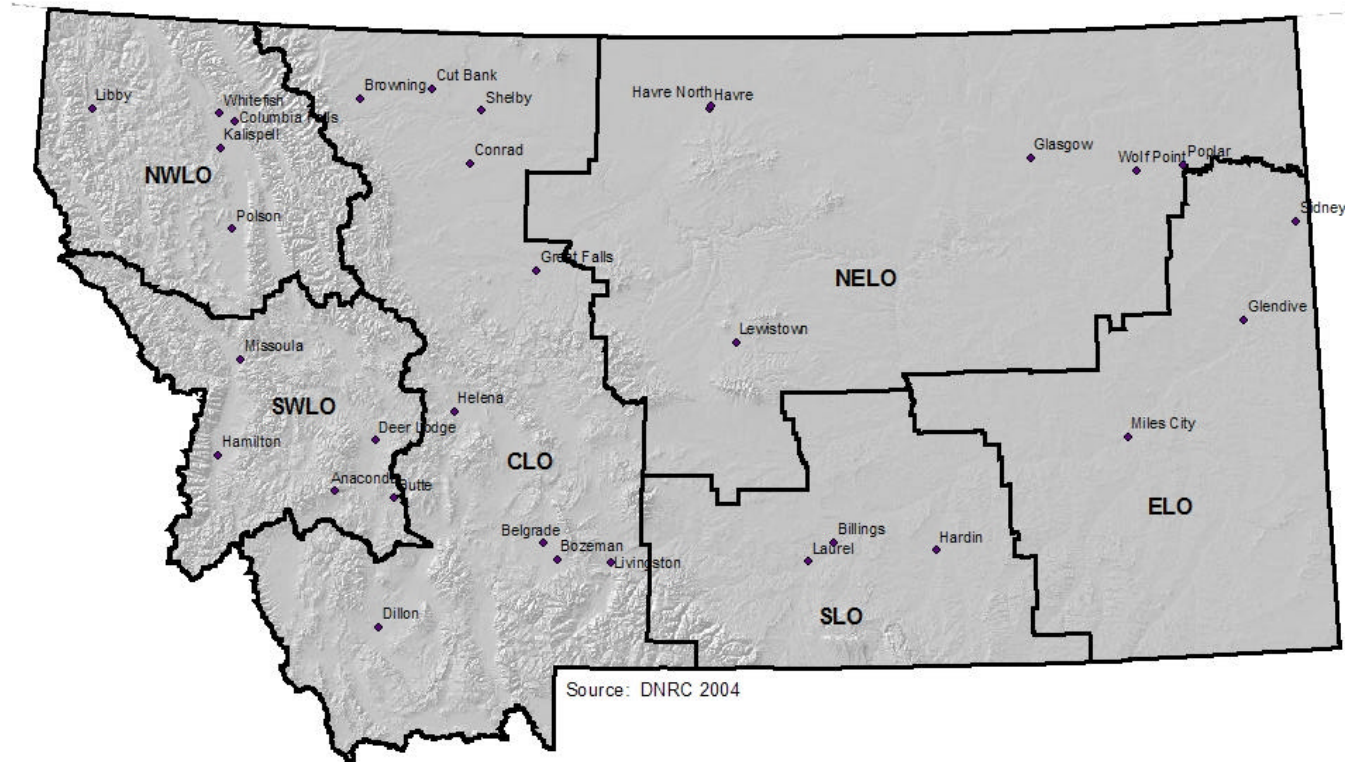
This chapter describes six alternative philosophic, strategic approaches to the management of real estate activities on trust lands by the REMB of the TLMD of DNRC. The analysis focuses on land use activities related to residential, commercial, industrial, and conservation uses. The underlying premise of each alternative is that growth (increased demand of residential, commercial, and industrial uses) on Trust Lands would correspond in varying degrees to anticipated growth in each of the six DNRC land office regions of the state (See Figure 2-1). Conservation opportunities on Trust Lands would be encouraged under all alternatives.

2.1.1 Explanation of Funnel Filtration Process

A decision-making framework, referred to as a funnel filtration process, provides a systematic approach to identify project level opportunities. This funnel filter approach begins with a physical environment filter followed by a transitional filter and a market filter that combine to generally define lands that might have some potential for future project opportunities. Five project level filters follow these three initial landscape filters. Key elements of the project-level filters include use of local land use review processes for impact analysis and mitigation and appropriate MEPA compliance. This plan is intended to offer guidance to the REMB through the year 2025. Each alternative has varying degrees of accomplishing the necessary specific objectives outlined in Chapter 1, Section 1.4.

Figure 2-1

DNRC Administrative Land Office Regions



2.2 HISTORY AND PROCESS USED TO FORMULATE THE ALTERNATIVES

The ranges of alternatives presented in this chapter were developed from the objectives and relevant issues identified through the Initial Proposal and DEIS processes (see Chapter 1). A summary of comments received, that in turn provided the basis for the issues and development of alternatives, is included in Appendix A.

2.3 ALTERNATIVE DESIGN, EVALUATION AND SELECTION CRITERIA

The design of the alternatives is based on four critical assumptions:

- The alternatives must correlate to the stated objectives of the PEIS and be responsive to the relevant issues.
- The existing Real Estate Management program constitutes the base line from which comparisons of alternatives are made.
- Growth (residential, commercial, industrial) on Trust Lands would correspond in varying degrees to anticipated growth within each of the six DNRC land office regions of the state.
- Each alternative would incorporate conservation opportunities.

Assumptions were necessary to fully describe how the existing program (No Action) and the five action alternatives would move forward into the future. The fundamental comparisons between alternatives primarily pertain to “management philosophies” or “response strategies” to projected estimates of growth. The basic three measures of comparing alternatives are: 1) quantity of acres of newly developed or conservation uses and 2) how those uses on Trust Lands would affect the natural and social environment and 3) the revenue return to the beneficiaries.

The following narrative identifies the fundamental components or baseline assumptions of each alternative so comparisons between alternatives can be narrowed to only those management strategies capable of achieving the respective land use philosophies of each alternative. All alternatives share a fundamental decision-making process but it is assumed that the no-action alternative is less structured than the action alternatives. Distinctions between the management elements of the existing program to the action alternatives are identified as appropriate and relevant.

2.3.1 Technical Alternative Design Elements

Each alternative can be described and evaluated relative to the existing program of the REMB. Alternative A (No Action or Status Quo) would maintain the existing

program into the future. Alternatives B, B-1, C, C-1, and D are compared to this baseline. Under the existing program, DNRC employs a number of real estate tools to achieve desired outcomes. The application of these tools would differ between alternatives.

The following management considerations (or elements) will be addressed by each alternative to provide comparative analysis:

- Relationship to Community Growth
- Land Use Categories
- Location Descriptors
- Project Selection and Prioritization (Relationship to the Funnel Process)
- Implementation Strategies
- Project Management Roles
- Administration
- Financial Considerations
- Environmental Review and Public Involvement

The following is a description of each of the management considerations to be addressed.

2.3.1.1 Relationship to Community Growth

A second tier of baseline comparisons shows how each alternative relates to community growth. An assumption is made that Trust Lands would share to some degree, in anticipated community growth. Trust Lands in Alternative B, B-1 and D would share proportionally to predicted community (regional) growth. Growth on Trust Lands in Alternative C and C-1 would constitute a proportionally higher share of the anticipated regional growth. Under Alternative A, the REMB would continue to pursue revenue opportunities for all land use types but the share of development on Trust Lands would likely be less than proportional to market conditions.

The acres of “new” growth presented in the EIS are not targets. Rather, they are estimates of new growth used for the purpose of drawing comparisons among the alternatives. The actual opportunities for sharing in the market on Trust Lands would be realized through filtration methodology and project identification processes, which will help determine the suitability of development.

- Regional Growth Indices – Population and income projections serve as reliable indicators for the location and scale of future development potential. Polzin (2004) describes economic trend analyses for each land office region and is the basis for identifying future growth potential by land office (See Appendix B). By 2025, it is estimated that approximately 1.16 million people will live in Montana. The fastest

growing region of the state will be northwest Montana (Whitefish, Kalispell, Bigfork, Polson Libby, Plains) followed by southwest Montana (Missoula, Hamilton, Anaconda, Lincoln), central Montana (Shelby, Great Falls, Helena, Bozeman, Dillon), and southern Montana (Billings, Red Lodge, Big Timber). Refer to the population and growth estimates presented in Chapter 4 (Table 4-1)

- State Ownership Mix – Trust Lands represent a percentage ownership of all lands in the state of Montana. This ownership relationship is shown in Table 2-1.

Table 2-1. State Land Ownership Mix		
Ownership	Acres	Percentage
Federal	27,192,268	28.9
DNRC Trust Land	5,153,551	5.4
Other Government Land	366,520	0.4
Tribal	5,395,454	5.7
Private	55,071,623	58.6
Water	844,425	0.9
Total	94,023,843	100

Trust Lands represent approximately 5.5% of the land area in Montana. The land ownership proportions vary by land office as described on the next page in Table 2-2.

Table 2-2. Land Ownership by Land Office												
Ownership	NWLO		SWLO		CLO		NELO		SLO		ELO	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Federal	5,691,828	62.7	4,223,416	56.8	7,912,595	34.6	5,456,705	19.0	1,288,960	12.4	2,618,766	16.9
Trust Land	314,396	3.5	233,569	3.1	1,254,486	5.5	2,003,245	7.0	382,115	3.7	965,740	6.2
Other Governm ent	16,940	0.2	160,642	2.2	135,535	0.6	27,400	0.1	10,953	0.1	15,052	0.1
Tribal	620,173	6.8	93,692	1.3	939,384	4.1	1,734,022	6.0	1,765,005	17.0	243,179	1.6
Private	2,187,120	24.1	2,703,027	36.4	12,484,101	54.5	19,188,447	66.7	6,903,489	66.4	11,605,440	75.0
Water	253,913	2.8	16,328	0.2	164,021	0.7	338,154	1.2	41,219	0.4	30,789	0.2
Total	9,084,369		7,430,674		22,890,121		28,747,973		10,391,740		15,478,966	

Each land office region is comprised of multiple ownerships as shown in Table 2-2. A general assumption is that developed uses (residential, commercial, industrial) could normally occur on all categories of land ownership, except for “federal” and “water”. All lands would be considered eligible for conservation purposes. The proportion (percentage) of Trust Lands to lands eligible for general development opportunities (total regional acreage less “federal” and “water”) is shown in Table 2-3.

Table 2-3 Proportion of Trust Land Eligible for Development by Land Office					
NWLO	SWLO	CLO	NELO	SLO	ELO
10%	7%	8%	9%	4%	8%

The percentages listed in the above table indicate the annual percentage of projected development that could occur on Trust Lands if they shared equal opportunities with other land ownerships. As an example, Trust Lands in the NWLO represent 10% of the total regional acreage (less “federal” and “water”) so could be expected to attain 10% of the estimated regional growth of residential, commercial, and industrial uses. It is understood that these proportionality percentages do not necessarily reflect the key element of location or trust land positioning within a particular community. It is for this reason, that the trust lands are further evaluated by a transitional model that considers proximity variables and by the funnel filter and project selection processes to key in on those properties that are suitable for development based upon such considerations as location, market, and entitlements (see Section 2.3.1.7). These proportion percentages would not apply to conservation strategies since all land ownerships and land categories, including “federal” and “water” could be suitable for conservation purposes.

2.3.1.2 Land Use Categories

The TLMD generates revenue to the trust beneficiaries from five general land use activities – agricultural leasing, grazing leasing, mineral leasing, timber harvesting, and real estate management. The REMB would generate revenue from activities on Trust Lands related to four land use categories. A general description of each of these categories is presented below.

- Residential – The greatest potential for new growth on Trust Lands is “residential”. Residential uses include single-family dwellings, duplexes, condominiums, townhouses, cabins, apartments, mobile-home parks, associated ancillary uses, and other residential uses normally recognized by local zoning regulations. The assumptions used to develop the growth and economic models are analogous to the methodology used by the Department of Revenue in that multifamily residential properties are typically classified as commercial for taxation purposes. As such, commercial forecasts included in this PEIS include some components of residential and, for accounting and implementation purposes, residential uses considered as commercial uses by the

Department of Revenue would be considered “commercial”. “Raw” or undeveloped properties might also be identified for residential potential through a highest and best use analysis, growth policy or zoning designation, or identified as “High Suitability” in the PEIS. For example, some forested lands may reflect a higher value if appraised as residential land, as compared to their value for timber management purposes. Rural residential forecasts in this PEIS define how much residential development might occur on lot sizes between 1 and 25 acres. No estimates were made for larger residential tracts (greater than 25 acres in size) or for single-family lots less than 1 acre in size but, for accounting purposes, it is assumed that the acreage forecasts for rural residential would include the small lot acreages. It is expected that the value of Trust Land properties having “single family” as the highest and best use would be realized in most situations, by sale [of the property] as opposed to leasing. Existing leased properties would not be sold in most circumstances.

As noted above, a basic assumption is that Trust Lands would share in expected community growth. In other words, market factors would determine how much of the new growth would occur on Trust Lands versus other lands. In Western Montana, most of the large lot residential growth is expected to occur in rural locations, including forested lands. As residential opportunities are identified for Trust Lands, the REMB could obtain the residential values of the land in a number of ways, including:

- Land Leasing: DNRC would maintain the existing residential leased properties. Lands with water frontage, scenic and recreation amenities, good access, etc., would be good candidates for expanding the residential lease program.
- Land Sales: Lands identified for projects that have a highest and best use as “residential” could be sold at appraised value or higher with an auction process. Revenue would be placed in the permanent fund.
- Land Banking: This is a land sale where the revenue may be pooled with other sold properties to purchase other desirable income properties for the various trusts. Lands sold for land banking to support agriculture, timber, or grazing would not be a REMB project as defined by the real Estate Management Programmatic Plan. Further, lands sold in conjunction with the land banking process that have limited entitlements (agriculture or timber land use designations that permit large lot development only; < 1 dwelling unit per 25 acres) would not qualify as residential, commercial, or industrial lands by definition of the Real Estate Management Plan.
- Land Exchange: This process would permit an applicant to exchange other lands for Trust Lands with the assumption that the

lands DNRC receives in exchange for the Trust Lands are in the better interests of the trust for reasons of income potential, asset management, or other reasons.

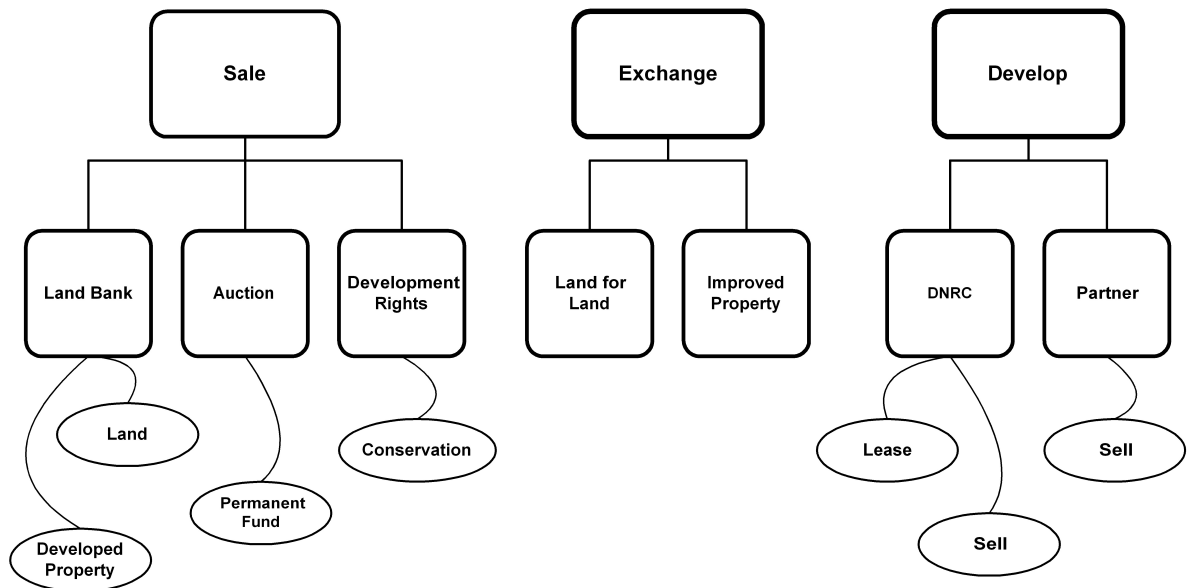
- Land Development: This process assumes DNRC would retain some ownership interest in the land as it is being developed for residential purposes. The REMB could either lease lots or sale lots under this scenario and could include partnerships with the private or public entities to accomplish development objectives.
- Transfer Of Development Rights (TDR)*: Land rights associated with a certain parcel, such as land use density, could be transferred to another Trust Land parcel within the same land office region to accomplish a variety of objectives. An example of TDR could include moving development away from a sensitive area (transfer) to an area more suitable for development (receiving area) A TDR program could also be set up with a local or county government to help achieve local objectives related to establishment of open space and higher density within urban areas.. An example would be to identify certain rural trust lands as sending zones and certain urban lands as receiving zones, wherein high density bonuses could only be achieved on the urban lands through the transfer of development rights from the trust lands.
- Purchase/Lease of Development Rights (PDR or LDR)*: The REMB could sell the development rights through a lease or license (LDR), or easement (PDR) in lieu of selling, exchanging, or developing the land for residential uses. This strategy would allow the REMB to realize the value of the development rights while maintaining DNRC ownership and historical use of the land.

*The use of TDRs is typically undertaken in the context of local land use planning regulatory processes. However, the sale of development rights (PDR/LDR) could, in most cases, occur outside the scope of local land use regulations.

These methods all assume that the REMB would attain the fair market value of the land on behalf of the beneficiaries of the Trust Lands. The first five options also assume that the land would be developed for residential uses, constituting a portion of the Trust Land share of residential growth in the entire land office area in which it is located. The last option (PDR), however, would have the effect of moving any expected residential development elsewhere in the community. As a result, the particular parcel of Trust Land would not share in the expected residential growth. In other words, eliminating the development potential on the Trust Lands would do nothing to eliminate the need or demand for additional residential development in the community. The need would simply be met elsewhere. The use of a PDR would help achieve conservation objectives but would not count towards the share of anticipated growth of residential uses (see estimates by alternative) on Trust Lands.

The options for attaining value on residential lands are generally depicted in Figure 2-2.

Figure 2-2. Methods of Income Generation on Trust Lands with Residential Value



- **Commercial** – Commercial uses include retail businesses, offices (private and public), service establishments, motels, resort recreation, RV Parks, communication sites, and other similar uses that may be recognized as “commercial” in local zoning regulations. Commercial uses might also include some residential uses if certain residential uses are considered commercial by the DOR. Public buildings, schools, religious structures and developed commercial recreational facilities are also included in the commercial land use category. In addition, “raw” or undeveloped properties might also be identified for their potential commercial use through a highest and best use analysis, growth policy or zoning designation, market analysis, or identified as “High Suitability” in the PEIS. Typically, DNRC would retain ownership of its commercial properties (land and/or buildings) and lease them to private entities rather than sell properties. As under residential, the REMB could sell the development rights through a lease, license, or easement (if applicable) in lieu of developing the land for commercial purposes. This strategy (PDR/LDR) would allow DNRC to realize the

value of the development rights while maintaining land ownership and historical use of the land. As noted under residential uses, the use of PDRs would have the effect of moving any expected commercial development elsewhere in the community and the specific parcel of Trust Land would not share in the expected commercial growth. The expected need or demand for commercial development would be met elsewhere. The use of a PDR strategy would help achieve conservation objectives but would not count towards the share of anticipated growth of commercial uses (see estimates by alternative) on Trust Lands. For purpose of tracking growth estimates, it is assumed that the acreage forecasts for commercial would include certain residential uses, such as multi-family, considered as “commercial” by the Department of Revenue.

- **Industrial** – Industrial uses include manufacturing, wholesaling, warehousing, utilities, heavy transportation, sanitary landfills, wind farms, sewage treatment facilities, feedlots, grain storage bins, irrigation facilities, reclamation projects, electrical substations, intermodal shipping facilities, and similar uses. In addition, “raw” or undeveloped properties might also be identified for their potential industrial use through a highest and best use analysis, growth policy or zoning designation, market analysis, or identified as “High Suitability” in the PEIS. Typically, DNRC would retain ownership of its industrial properties (land and/or buildings) and lease them to private entities rather than sell properties. As under residential and commercial, the development rights could be sold through a lease, license, or easement (if applicable) in lieu of developing the land for industrial purposes. This strategy (PDR) would allow DNRC to realize the value of the development rights while maintaining land ownership and historical use of the land. The use of PDRs would have the effect of moving any expected industrial development elsewhere in the community and the specific parcel of Trust Land would not share in the expected industrial growth. The expected need or demand for industrial development would be met elsewhere. The use of a PDR strategy would help achieve conservation objectives but would not count towards the share of anticipated growth of industrial uses (see estimates by alternative) on Trust Lands.
- **Conservation** – Conservation lands are generally lands for which certain real property rights have been “removed” to maintain long-term rights for open space, preservation of habitat, natural areas, parks, or other such purposes. Conservation objectives can be secured on Trust Lands through the issuance of conservation easements, leases, and licenses. Another method is to sell, lease, or license development rights on Trust lands. Under this method, the development potential

on a particular land parcel for residential, commercial, or industrial uses (as determined by a highest and best use analysis) would be purchased to remove these property “rights” and thereby prevent development of these type of uses on the property. The ownership of the land would remain with the “state” and, in most situations, the underlying historical use of the property, such as agriculture, grazing, and forest management, could continue. In all situations, the REMB would seek financial compensation for “lost” rights. An appraisal process would be used to assign a value to the property rights to be purchased through a conservation strategy. Current legislation limits the authority to sell permanent conservation easements on Trust Lands. Legislative authority may also be necessary to sell development rights. Easements would provide a one-time purchase of certain identified development rights based upon the market value of those rights. Non-permanent options for securing certain rights to Trust Lands would be accomplished by license or lease.

While there is no known strategy for identifying trend patterns or expected growth rates for conservation easements, leases, or licenses on private and public lands, the REMB has evaluated the potential for the transfer of certain of its lands to conservation use. A GIS process was used to identify the physical relationship of Trust Lands to significant natural features across the state and within land office regions. (This information is presented in Chapter 3.) The assumption is that some Trust Lands in close proximity to other conservation areas might share similar conservation attributes and may, therefore, be suitable for conservation strategies. Existing conservation areas were identified as including the following groups of lands:

- National Parks
- National Monuments
- Wilderness Areas
- Wild & Scenic Rivers
- Wildlife Refuges
- Game Ranges
- Public/Private Conservation Easements

Trust Lands (acres) were then identified according to whether they were located (1) adjacent; (2) within 0.5 miles; or (3) 1 mile of these land categories. The results are shown in Table 2-4.

Table 2-4. Relationship of Trust Lands to Existing Conservation			
Land Office	Adjacent	Within 0.5 Miles	Within 1 Mile
NWLO	22,233	38,502	50,867
SWLO	12,093	26,233	38,968
CLO	72,276	130,831	176,376

NELO	68,689	101,303	134,822
SLO	3,522	12,319	19,957
ELO	10,464	20,947	25,058
Total	189,277	330,136	446,049

These lands may or may not have any particular value for conservation, nor is it known whether these lands have a market for this purpose. However, each plan alternative would consider this as a “pool” of potentially suitable lands for conservation. However, none of the alternatives would specifically limit options to purchase/lease development rights on any Trust Lands.

All of the alternatives presented in this PEIS provide opportunity for conservation uses on Trust Lands through the purchase of development rights. Conservation acreages have been calculated based on the proximity of Trust Lands to existing areas with attributes associated with conservation lands. However, these acreages are projections only and are not intended to limit the number of conservation uses that may occur on Trust Lands.

There are a variety of reasons for creating or desiring a particular conservation strategy and all might reflect different priorities based upon the particular mission of an agency or special interest group and/or available funding. Many conservation strategies are intended to protect wildlife habitat. However, the REMB recognizes that not all conservation strategies are intended to protect a natural resource per se. In some situations, the purchase of development rights could be proposed to maintain the status quo of an area. Given this understanding, it would be reasonable to conclude that purchase of development rights might be proposed [by others] as an alternative to the potential sale or development of certain Trust Lands.

As indicated in Chapter 3, the TLMD is currently preparing a voluntary Habitat Conservation Plan (HCP) for forest-management activities on Trust Lands. The HCP will address those lands that provide habitat for species currently listed or those that could be listed under the Endangered Species Act (ESA). The HCP offsets harm caused by lawful activities, such as forest management practices, by promoting conservation strategies to minimize or mitigate impacts to threatened and endangered species. The conservation objectives for the HCP process could be achieved in concert with the REMB program for conservation under all six of the proposed alternatives including the current condition (Alternative A).

2.3.1.3 Location Descriptors

Land use activities can be described as occurring in three general locations:

- **Urban** defines a named location (latest state highway map) where a mix of different developed uses occurs in close proximity to each other. All incorporated cities would be included in this category plus unincorporated communities that typically have public water or sewer facilities. Urban would include the customary extraterritorial planning jurisdiction of a city.
- **Suburban** defines a transition area between urban and rural. This would normally define a mostly residential area where land use densities generally range between 1 to 20 acres per dwelling unit.
- **Rural** defines lands not considered to be urban or suburban. These lands are typically distant from developed centers but may have some concentration of residential, commercial, or industrial uses associated with certain amenities or resource ties, such as saw mills in the forest, resorts near a lake, or a ski area on steep slopes.

2.3.1.4 Project Selection & Prioritization

This section describes a programmatic approach to the identification and selection of real estate opportunities on Trust Lands under each of the action alternatives. The approach is a systematic process that offers a filtration methodology for identifying lands that may ultimately be suitable (as determined by subsequent project level analyses) for residential, conservation, commercial and/or industrial purposes. Figure 2-3 represents the initial filtration process. The entire funnel filtration process is depicted in Figure 2-4. All Trust Lands can be “filtered” through a series of eight (8) processes to determine project level opportunities. A Geographical Information System (GIS) analysis was used to generally identify lands that might be unsuitable for development (physical filter) and to identify lands that may have some level of development potential (transitional lands). The methodology and results of this GIS study (Geodata Services 2004) is presented in Appendix C. A demographic and economic process was used to model projected growth in the six land office regions of the state (Jackson 2004). The methodology and results of that study are presented in Appendix D and represent the “Market” filter of the funnel process. The remaining five filters of the process are project level analyses used to identify and select appropriate development opportunities. The REMB would use a Real Estate Identification Team (REIT) approach to develop 1, 3, and 5 year project lists (Figure 2-5).

Figure 2-3. Initial Steps to Funnel Filter Process

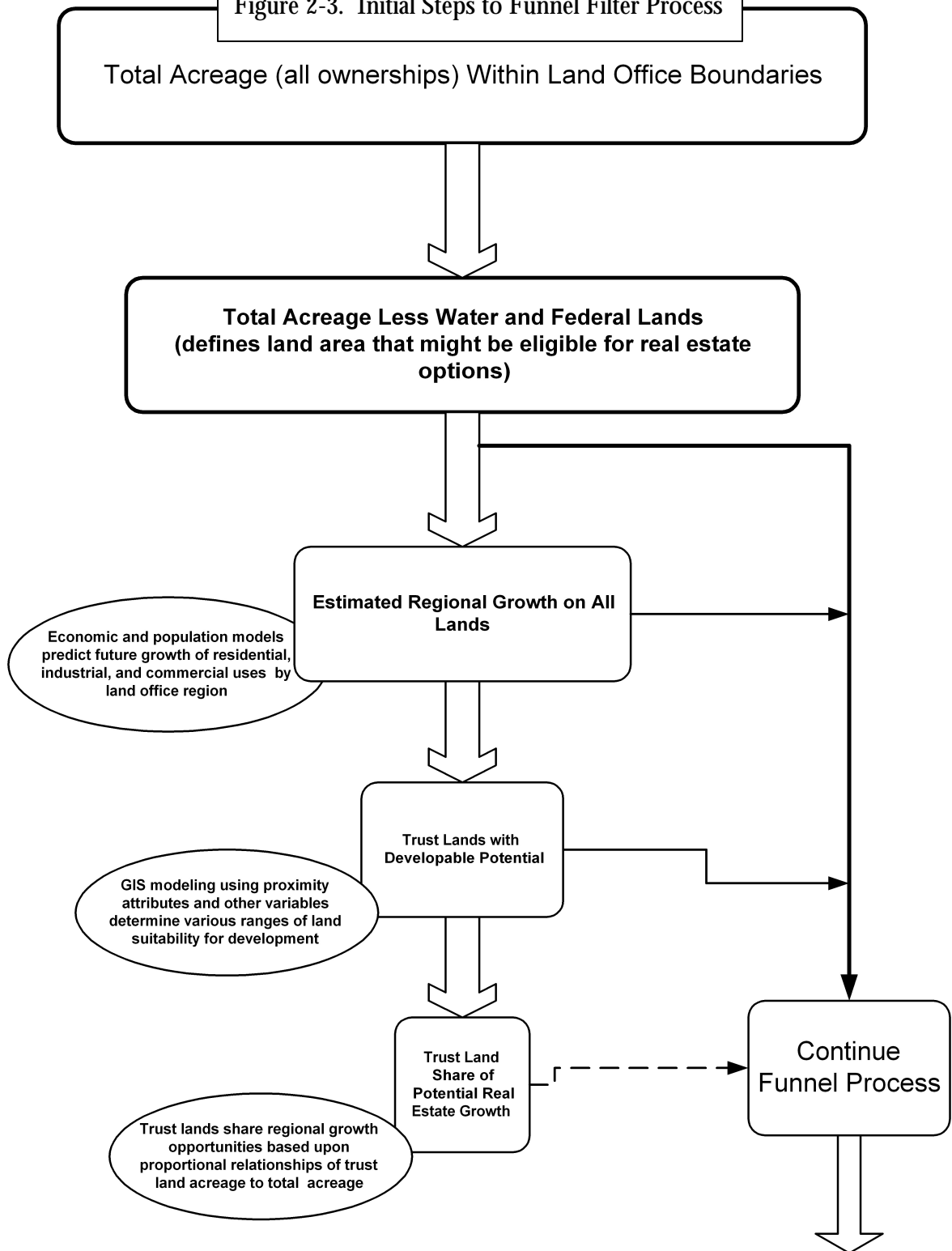
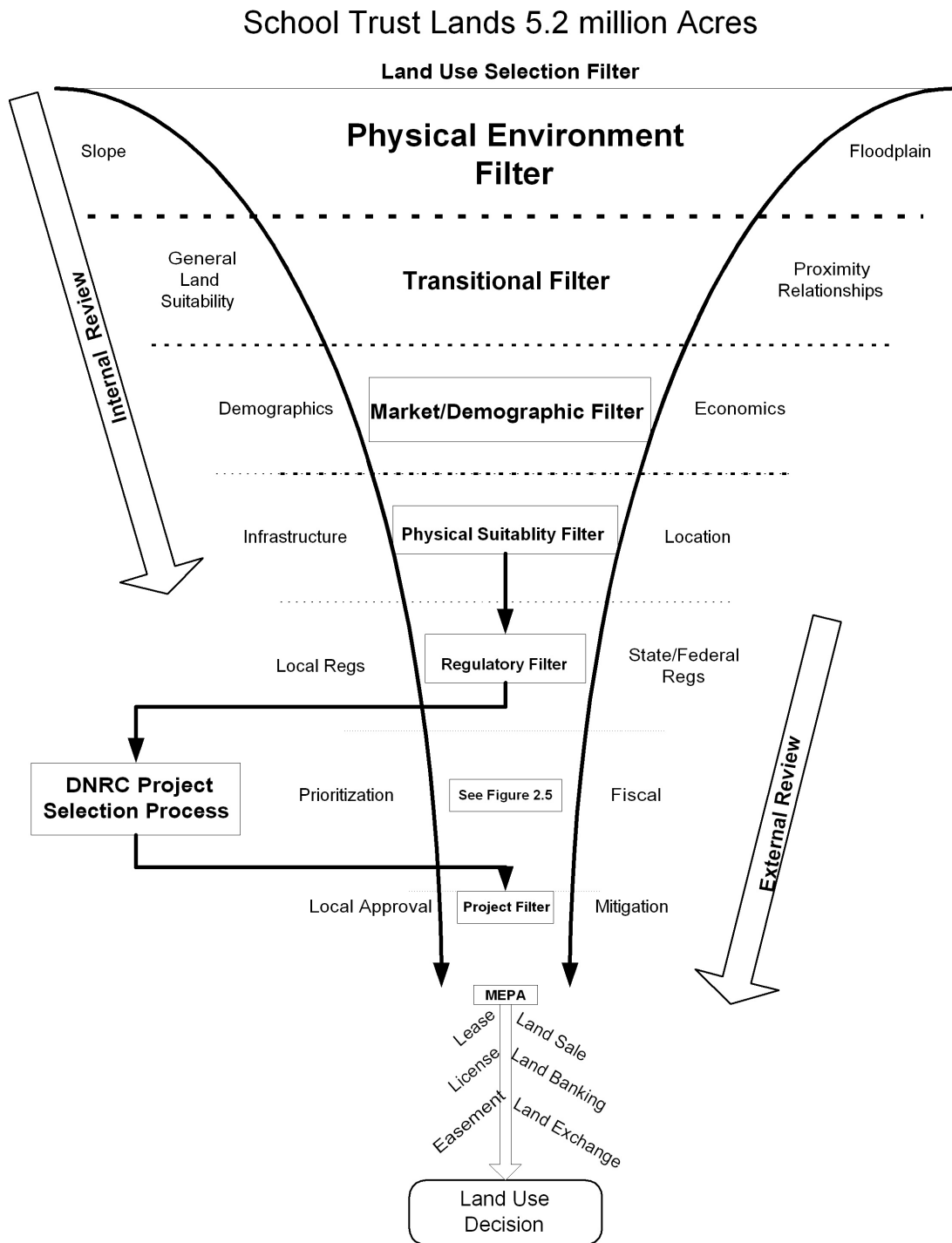


Figure 2-4. Funnel Filter Process



The Funnel Filter Process - The funnel filter process would be common to all action alternatives and would be a desirable process for the no-action alternative, as well.

- The Physical Environment Filter – A large percentage of the 5.2 million acres of Trust Lands may not be suitable for residential, commercial, or industrial uses due to physical constraints. For the purpose of this initial review, developable land is generally characterized as lands with slopes less than 25% slope and lands located outside a designated 100 year flood plain. In general, development would not be appropriate on those lands with slopes in excess of 25% or within floodplain areas. However, lands with these characteristics may be suitable for conservation strategies. Development potential on these physically constrained lands would be strictly limited to unusual or unique situations. Based on this initial coarse filter analysis, approximately 86% of Trust Lands would be physically suitable for some level of residential, commercial, or industrial development. A break-out of developable lands by land office is shown in Table 2-5. Notice that in mountainous areas like the Northwestern Land Office, almost 50% of the total Trust acreage of 314,396 is considered unsuitable for development due to these 2 identified physical constraints. While all of the “developable” land is considered generally suitable for residential (without consideration of “market”), only a portion of the entire developable acreage would be appropriate for commercial or industrial uses.

Table 2-5. Potentially Developable Lands (acres)							
	NWLO	SWLO	CLO	NELO	SLO	ELO	TOTAL
Total Trust Acres	314,396	233,569	1,254,486	2,003,245	382,115	965,740	5,153,551
Developable Acres*	152,858	142,377	1,001,742	1,853,106	354,845	909,878	4,414,806
* lands on slopes less than 25% and outside 100 year flood plain							

Two biological filters would also be applied to this stage of the funnel filter. Lands located within the grizzly bear recovery area or portions of lands immediately adjacent to a core bull trout stream of a Habitat Conservation Plan (HCP) would be generally excluded from most development options. Removal of lands from the HCP to accommodate certain types of land use would be accomplished under the Transitional lands strategy in the HCP. A series of maps are included in Appendix H to visually describe how lands are filtered using these physical and biological components. (Lands affected by bull trout streams are not shown due to scale limitations.)

- The Transitional Filter – This second level filter evaluates geo-spatial variables to identify favorable locational attributes of Trust Lands. A GIS model was used to establish proximity relationships of Trust Lands to existing land uses. This data identified lands that are “transitional”, meaning that the lands have some development potential for residential, commercial, or industrial uses. Subsequent filters would be used to determine project level opportunities from this pool of potentially developable lands. Table 2-6 is a summary of lands that may have development potential (measured in acres) within each land office area for rural residential uses, with “High” indicating those lands most suitable for developed uses. The methodology and detailed results of the GIS study is presented in Appendix C. A more detailed explanation of the reliability of the assumptions used in the model is found in the response to comments Appendix A1-3 of this EIS. A Course Filter Analysis technique (Appendix E) is currently performed by the REMB to accomplish similar objectives but mostly on a project-by-project basis.

Land Office	Table 2-6. Lands Acreages for Rural Residential Uses by Suitability Ranking		
	High	Medium	Low
NWLO	28,268	82,074	42,516
SWLO	19,027	72,017	51,333
CLO	16,773	506,089	327,880
NELO	284,097	995,784	573,225
SLO	53,959	195,160	105,726
ELO	114,261	534,260	261,357
Total	516,385	2,385,384	1,362,037

Table 2-7 reflects lands that have close association to existing commercial cores and highway corridors. The acreage estimates are gross to the extent that additional filters would be necessary to determine project level suitability. Please refer to the report by GeoData Services (2004) in Appendix C.

Table 2-7. Lands Potentially Suitable for Commercial or Industrial Uses (acres)							
	NWLO	SWLO	CLO	NELO	SLO	ELO	TOTAL
Acres*	6,940	6,082	16,330	17,220	9,104	9,336	65,012
*Excludes lands with slopes > 25% and located within 100 year floodplain							

There is no known process to identify the full range of conservation opportunities on lands since there is no known direct correlation between conservation demand and real estate market factors. Because of this, the plan alternatives attempt to define conservation opportunities based upon the proximity of trust lands to existing conservation-type lands. Please refer to Table 2-4 and related discussion in Chapter 3. None of the alternatives attempt to discourage conservation strategies on Trust Lands, provided the beneficiaries are fully compensated for the rights foregone by conservation leases, licenses, and easements.

- The Market/Demographic Filter – The lands filtered through the first two processes may be physically or biologically suitable [on a gross or landscape scale] for the identified land uses but may not be suitable from a demographic perspective. A demographic/economic model was used to identify future regional growth in the categories of “rural residential” and “Commercial/Industrial”. Growth, in acres, was identified by defined periods of time extending out to year 2025 by Jackson (2004) with the study included in Appendix D. Estimates of total anticipated rural residential and commercial/industrial growth measured in acres by land office region is summarized in Chapter 4. These estimates were derived by averaging growth estimates over several counties to determine a regional estimate of growth based on land office boundaries. [In most situations, no or low growth counties lower the growth averages for a land office region.] An assumption is that development on trust lands would occur on some subset of the identified transition lands. The projected market share of developed uses on trust lands under all alternatives is less than 3% of the total area of identified transitional lands. The purpose of subsequent filters is to identify, through a project evaluation process, the specific lands that would be eligible for developed uses.

The ratios of Trust Land ownership (Table 2-3) to all developable land ownerships (all lands less federal and water) would be used to assign the share of the expected residential, commercial, and industrial growth on

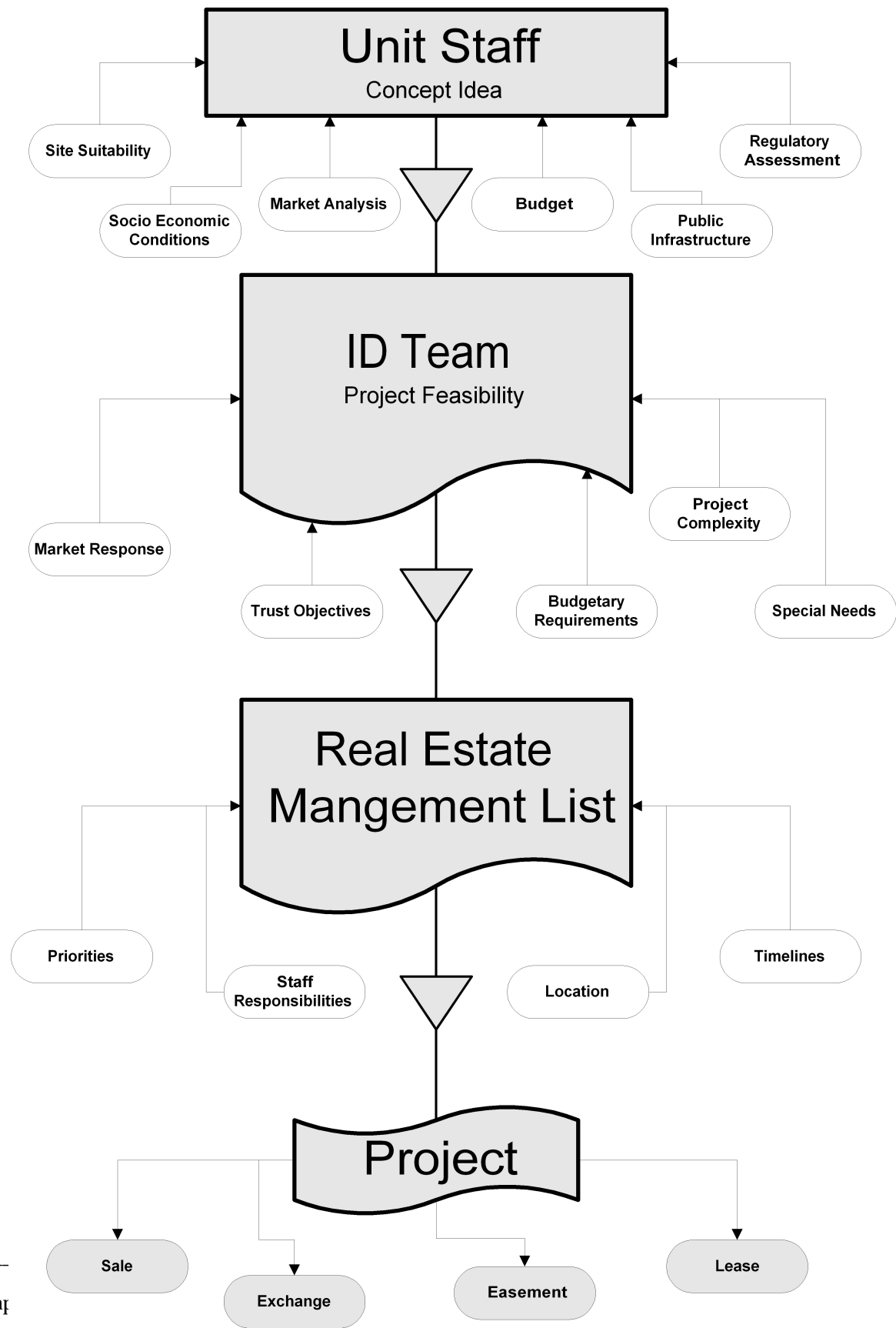
Trust Lands by multiplying the percentage ownership values in Table 2-3 by the corresponding growth estimates depicted in Tables 4-2 and 4-3 of Chapter 4. There is no known method of accurately predicting market or growth demand for future conservation strategies. As stated in the previous section, all plan alternatives would support “conservation” strategies on all Trust Lands.

- The Physical Suitability Filter – The general purpose of this filter is to perform site evaluations to confirm the physical and location suitability of land for development opportunities. Essential elements of this filter would be to examine property relationships to infrastructure (roads, electricity, telephone, water, sewer, natural gas, fiber, etc) and the physical suitability of the property for development. The coarse filter analysis (Appendix E) would be used for analysis purposes. This field analysis would also consider the presence of any unique aesthetic values (ridgelines, water features, views, vegetation), historical features, and relative location to municipalities or other development. The land use options for the property would be considered using a coarse market analysis that considers an assessment of the local markets and how the state trust lands are positioned to accommodate growth locally. The coarse market analysis will take into consideration historical and recent trends in population and income growth, demand and supply assessment, absorption rates, interviews with realtors, bankers, appraisers and city and county planning officials, and other acceptable approaches. Each land/unit office staff, under the supervision of a land use planner, would help prioritize project potential opportunities for a particular land office area. Urban development opportunities, if any, would generally receive first priority followed by suburban, then rural (see Section 2.3.1.6). This process would identify the relationship of the markets within land office regions and the position of state trust lands to private lands in growing markets. The coarse filter and market filters provide the finer filter analyses for determining the suitability and feasibility of particular properties for project consideration.
- The Regulation Filter – After specific property is identified as having potential for development through the Physical Suitability Filter, the area field staff would complete a regulatory analysis. [Developed uses on trust lands would adhere to local land use regulatory processes and to all applicable state and federal regulations.] A regulatory assessment would be performed to identify all existing land use entitlements and those that might be desired to achieve the best use for the property and best return to the applicable trust. This would be accomplished in consultation with the local land use regulatory office. Each area office could coordinate at any time with other strategic efforts of others within the TLMB to help position property for future opportunities. This may include matters

concerning the granting of easements, alignment of roads, etc. Ongoing efforts by DNRC planner(s) would include participation in all local regulatory process that may have some influence on trust lands.

- The Selection Filter – The selection filter is explained graphically in Figure 2-5. The purpose of this filter is to consider all the project proposals of the area land offices. Each land office would prepare a written proposal for each project that summarizes the findings of the previous filters. A Real Estate Identification Team (REIT) comprised of Bureau and field personnel would evaluate the projects, giving consideration to the complexity, cost, revenue, and staffing needs of the projects. The result of this evaluation would be a real estate management project list with a time schedule. The list would be 1, 3 and 5 year “target” objectives for the REMB and would be available for review by the general public.

Figure 2-5. Project Selection Process



- The Project Filter – Once a property is identified as a proposed project through the REIT process, the following would likely occur:
 - Determine method of income generation; land exchange, sale, lease, or license;
 - Identification of staffing and budgetary needs;
 - Forecasts related to marketing and project completion;
 - The project may be submitted as an application (as applicable) to the local regulatory review processes for approval of a growth policy amendment, zone change, or subdivision.
 - In some situations, DNRC would be the applicant to secure the highest level of land entitlements or when a land division, in particular, is necessary to create lease lots.
 - A developer may be the applicant in some cases as a tool to pass costs onto the developer.
 - Zoning, if applicable, would help define the appropriate use, scale, and density of development and subdivision review would require adherence to local design standards. Projects denied through the local regulatory process would not proceed.
- MEPA – The last filter is the Montana Environmental Policy Act (MEPA). Prior to the issuance of a lease, sale, land exchange, or easement, DNRC would prepare a MEPA analysis of the proposed project. MEPA review would tier whenever practical to local review so as to avoid redundancy of process. Local review in most instances involving subdivision review and conformance to local zoning regulations provides a built-in impact assessment and mitigation process as applicable to new development. Refer to related discussion in Chapter 5.

2.3.1.5 Implementation Strategies

The REMB would employ a number of private and public sector real estate strategies to achieve development and conservation objectives under each of the alternatives. For example, real estate projects may require the formation of a joint venture between the DNRC and private or public interests in order to finance needed infrastructure. The REMB could use innovative real estate planning tools such as transfers of development rights to help target development in areas that are in close proximity to existing infrastructure or in areas of high growth. Density bonuses could be sought from local planning authorities to offer incentives for the provision of open space, for example. State law provides for specific land use authorizations and transactions associated with the management of Trust Lands as outlined below. Implementation strategies described under each alternative are not meant to be exclusive between alternatives. Alternatives B, B-1, C, C-1, and D require additional staffing and budget to implement, providing more creative implementation tools

available by alternative. However, DNRC would utilize land management and implementation tools under each alternative as staffing and budget allow.

- Land Use Authorizations – Authorizations include leases, licenses, and easements wherein the trust beneficiaries are financially compensated for temporary use of the land. Authority for the issuance and approval of land use authorizations is the responsibility of the Department. More descriptions of authorizations are included in Chapter 3.
- Land Transactions – Montana statute provides for the sale, purchase or exchange of Trust Lands. Furthermore, the state may also engage in land banking which enables the state to use proceeds from sold lands to purchase other lands, easements, or improvements for the benefit of the beneficiaries of the respective trusts. Authority for the issuance and approval of land use transactions rests with the State Board of Land Commissioners. More descriptions of transactions are included in Chapter 3.
- Marketing – Marketing is a necessary and appropriate tool to manage the trust portfolio. Integral components of marketing are described below.
 - Advertising -- The REMB can promote the availability of Trust properties through a variety of means including paid advertising in various local, state and national publications, direct contact with businesses and organizations, Internet postings, and informational signs on the available properties. The REMB may also choose to prepare brochures in both electronic and hard copy formats for targeted mailings.
 - Real Estate Professional Affiliations – REMB staff may join professional real estate and development organizations and societies to derive a number of benefits. These include joint advertising opportunities, continuing education in the real estate development field to enhance REMB staff expertise, and the ability to engage a larger number of people in promoting Trust Lands.
 - The Request for Proposal (RFP) process -- The TLMD is required to solicit competitive proposals in identifying prospective users of Trust Lands. This process requires the preparation of development packages that include the types of project proposals being solicited and associated bidding requirements. The RFP is typically placed in a number of publications and on the Internet.

2.3.1.6 Project Management Roles

- The State Board Of Land Commissioners – The State Board of Land Commissioners (Land Board) has general authority and control over the management of Trust Lands (77-1-202, MCA; Article X, Section 4, Montana Constitution). The DNRC, under the direction of the Land Board, “has charge of the selecting, exchange, classification, appraisal, leasing, management, sale, or other disposition of state lands”, 77-1-301, MCA. However, as stated above, while the DNRC generally is responsible for reviewing and approving authorizations (leases, licenses and easements), the Land Board is responsible for the review and approval of land transactions (sales, exchanges and purchases of lands).
- The Real Estate Management Bureau – All land use proposals on Trust Lands for uses other than agriculture, grazing, and forestry would be evaluated by the REMB and field staff. However, the role of REMB in initiating and processing opportunities may vary by alternative. The level of involvement by REMB would depend, somewhat, on adequacy and expertise of staff, type of project, complexity of project, and a number of other considerations. Depending on each situation, the REMB could share or assign certain project responsibilities to the developer or other affected parties. Relationships with other entities might include partnerships, joint ventures or cooperative agreements and would provide unique opportunities to team-up with other entities to pursue a particular land use objective on Trust Lands.
- The Developer – “Developer” is a broad-use term that generally applies to anyone seeking use of Trust Land for residential, commercial, or industrial uses. Under most situations, the REMB would transfer most of the project approval costs onto the Developer. This could include the costs associated with local government application fees, infrastructure, environmental studies, and other related costs or needs.
- City/County Local Governments – In some circumstances, the REMB may coordinate certain land use objectives with local jurisdictions to satisfy mutual interests and opportunities. This could, for example, include local objectives related to the expansion/extension of infrastructure or providing certain opportunities to achieve local economic or housing objectives.

2.3.1.7 Administration

- Staffing and Staffing Expertise – The ability of DNRC to react, promote, or engage in certain land use opportunities could be affected by the number, type, and expertise of staff within the REMB. Staffing

needs would vary by plan alternative and would be linked to revenue objectives.

- **Funding and Land Entitlements** – There are a number of strategies to achieve revenue objectives for Trust Lands under each of the action alternatives. One strategy would include increasing the number of leases on Trust Lands and prioritizing projects that would typically generate the most income on a per acre basis. Another strategy could include improving the entitlements to trust properties for the purpose of increasing the underlying land values. Such “entitlements” might include improving access, extending water, sewer, or roads, and other similar infrastructure improvements. Entitlements could also include zoning and growth policy designations favorable to development, as well as annexation of land into city limits or into water and sewer districts. The amount of operation dollars to improve land entitlements would vary by alternative.
- **Statutory Authority** – The Enabling Act (1889), the Montana Constitution, statutes, and court decisions define the purpose and revenue-generating objectives of Trust Lands. However, legislation may be necessary to authorize or clarify certain actions anticipated by the various alternatives. An example would be legislative authority to establish “seed” money for a revolving fund intended to finance certain land improvements intended to improve the underlying value and marketability of Trust Lands. Also, it may be necessary to provide statutory authority for the sale of development rights on Trust Lands and conservation objectives may benefit from broadened authority.

2.3.1.8 Financial Considerations

- **Revenue to the Trust Beneficiaries** – Each of the action alternatives provides additional revenue to the Trust. Further, regardless of the alternative, the rate of return for each of the types of “other” use – commercial, conservation, residential or industrial – would remain the same (e.g., annual lease payments for residential uses would be equal to 5% of appraised value under all alternatives). Conservation, residential, commercial, and industrial uses on Trust Lands would generate revenue for the beneficiaries in a number of ways, including:
 - Providing revenue to directly to the beneficiaries of the State Trust
 - Providing property tax revenue to local school districts
 - Increasing the local bonding capacity to finance infrastructure improvements including those for schools
- **Benefit to the Local Property Tax base** – Trust Lands are generally tax-exempt. However, it is assumed that Trust Lands sold or leased for commercial or industrial uses would pay both real and personal

property taxes. Residential improvements on leased land would pay taxes on the improvements.

- **State Equalization Funds** – In 1965, legislation was adopted providing for reimbursement to counties for loss of revenue because of the tax-exempt status of state-owned land in excess of 6% of total land area, 77-1-594, MCA. In 2002, the state compensated counties a total of \$647,754.
- **Job Creation** – As suggested previously, the REMB would be sharing in growth that is already expected to occur in the community. Accordingly, use of Trust Lands for residential, commercial, or industrial uses would not create any new jobs, per se. However, of the new jobs created by projected community growth, it can be expected that Trust Lands would account for 2-20% of the total new community jobs, depending on alternative. Jackson (2004) provides more detail concerning the creation of jobs with development of Trust Lands (Appendix D).
- **Asset Management** – The TLMD is responsible for the management of trust lands for a variety of purposes on lands classified as “grazing”, “timber”, “agriculture”, and “other” (77-1-401, MCA). The amount of acreages associated with each use classification is presented in Chapter 3. The REMB is responsible for managing all land transactions (sales, exchanges, transfers) and “other” uses of the land related to residential, commercial, industrial, and conservation. The number of real estate transactions would vary by alternative.

2.3.1.9 Environmental Review and Public Involvement

The REMB, would, in many cases, accomplish public involvement and environmental effects disclosure responsibilities anticipated under the Montana Environmental Policy Act (MEPA) through adherence to local land use policy and regulatory processes. (See related discussion in Chapter 5)

- **Relationship to Local Land Use Regulations** – At the local level, land development is subject to various land use policies and/or regulations. These include subdivision regulations, zoning ordinances, annexation requirements, and growth policies. Montana statutes set forth the items that must be addressed under each, although local jurisdictions may incorporate additional elements. A complete discussion of local land use planning provisions is found in Chapter 5.
- **Relationship to MEPA** – In complying with local land use regulatory processes, many of the public involvement and environmental disclosure requirements would be similar to those required under

MEPA (75-1-103, MCA and subsequent sections). In those cases where local land use regulations and policies do not address all the necessary MEPA elements, the REMB would undertake the additional review necessary to comply with those MEPA requirements that fall outside of local planning authority. The REMB would, under MEPA and the Montana Antiquities Act, undertake an analysis of its proposed activities with regard to cultural resources. In some situations, the local regulatory review and compliance processes may exceed the review requirements of MEPA.

2.3.2 Outcome Requirements

The alternatives are structured to address the objectives of the PEIS while considering the external and internal issues identified through the scoping process. Each alternative is designed to present a management philosophy and decision making framework for the REMB. There are a number of common elements shared between alternatives to ensure maximum public involvement in the decision-making process, protection of the environment, and consideration of local community values, among others. Distinct differences between alternatives are primarily related to the extent Trust Lands share in local growth and how market opportunities are achieved through the use of various real estate tools, project management, personnel, and financial resources.

2.4 IMPLEMENTATION OF PREFERRED ALTERNATIVE

The acreage estimates of increased revenue-generating uses of Trust Lands, for each alternative, are not goals or targets [absolute or otherwise]. Rather, they illustrate the variety in outcomes of implementing six underlying management philosophies, one of which will be selected to be the management philosophy, the Plan. The main difference between the six management philosophies is the relative degree to which the REMB will participate in and benefit from the expected increase of demand in land uses in Montana. Those six philosophies of REMB participation in the increased utilization of land uses are: less than proportionate, proportionate, and more than proportionate (to the residential, commercial, industrial and conservation uses of other lands in the same region).

The underlying expectation inherent in the design of every alternative is that the residential, commercial, and industrial uses of Trust Lands will increase in some corresponding fashion to increased growth in the state of Montana. The growth (or increased use) estimates for new development on all lands, measured in acres, is calculated utilizing population and economic projections. Corresponding increased growth on Trust Lands will obviously depend on characteristics conducive to that growth (proximity of roads, services, etc.) Presently, there is no known similar correlation (or model) between economic/population growth and the increase (or decline) in the number of conservation easements or purchases. However, a proximity model to other existing conservation-type lands is described to help

identify and prioritize conservation opportunities (easements, development rights purchases) under all alternatives, to provide a measure of comparison of alternatives (strategies).

The selection and implementation of a preferred alternative will define how future land use opportunities will be addressed, given the level of staffing, funding, legislative priorities and authorization, and implementation of real estate tools associated with that alternative. The proportional share of the residential, commercial and industrial markets that the REMB is able to realize will be based on how well the REMB is able to respond to market conditions. The analyzed alternatives represent a sliding scale from “reactive” (Alt A, no-action, continued current program) to “highly responsive” (Alt C and C-1 - Focused Portfolio), each with a corresponding, relative increase in the share of the residential, commercial and industrial uses occurring on Trust Lands (displayed in acres).

The selected alternative will provide the overall management philosophy for the REMB that will determine the emphasis that will be employed in specific land management decisions. The resulting levels of development on Trust Lands will provide a monitoring indicator and will not be the critical test of success or failure. This is not to suggest that tracking development growth (in acres) on Trust Lands has no value towards assessing implementation of the philosophy of a particular alternative, but only that it is one element of monitoring progress towards successful implementation of the selected alternative, the Plan.

Tracking (accounting, counting) the number of new acres developed for residential, commercial, or industrial uses, or the number of new acres associated with “conservation” is described under Section 4.3, Monitoring and Accounting.

Rural tract lands (density of less than 1 dwelling unit per 25 acres), public easements, parks, schools, public facilities such as recreation fields (or similar uses), and wind mills, were not included in the rural residential or commercial/industrial forecast models. The associated land areas would be tracked for monitoring purposes but would have no direct relationship, from an accounting perspective, to the modeled acreage estimates.

2.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

DNRC is required to consider only alternatives that are realistic, technologically available, and that represent a course of action that bears a logical relationship to the proposal being evaluated (36.2.5552.b ARM; 75-1-201 (2)(iv)(C)(I), MCA).

2.5.1 Minimal/Passive

Some commentators suggested that the DNRC consider a passive alternative, where the REMB would defer new residential, commercial and industrial uses and allow existing land use authorizations to expire. The only uses allowed would have to be non-consumptive, non-extractive, and reversible. Land use activities involving

commercial, industrial and residential development would not be authorized. Sales, exchanges and easements would be minimal. This alternative was eliminated from detailed study because it conflicts with the Mission of the Trust Lands Management Division and the first objective of the proposed action: Generate increased revenue for trust beneficiaries.

2.5.2 Aggressive Management

Some commented that the REMB should aggressively market residential, commercial and industrial uses wherever possible and use all exemptions available to maximize income to the beneficiaries. The DNRC should accept some adverse environmental effects and adverse public comment in order to earn greater revenue for the trust beneficiaries. This alternative was eliminated because it conflicts with the following objectives listed in Section 1.3:

- It would be in direct conflict with the TLMD's mission to manage Trust Land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land.
- It would de-emphasize opportunities for public involvement in decisions affecting real estate management.
- It would not simplify the project level evaluation process

2.5.3 Long Term Resource Management and Conservation

Some suggested REMB emphasize the protection of wildlife habitat, open space and public recreation opportunity, and the placement of public facilities on Trust Lands. Residential, commercial and industrial uses would be considered only to the degree that such uses enhanced or did not conflict with these primary resource values.

The primary focus would be placed on using lease and easement agreements and other conservation strategies for the preservation of wildlife habitat, open space, and other natural and cultural resources. This approach would be primarily taken in rural areas, although in certain circumstances it may be appropriate in urban areas with unique natural resource values. If there were conflicts, wildlife and natural resource values would take precedence over all other uses, including public access and recreation.

This alternative was eliminated because it did not address the TLMD's mission related to the generation of revenue for the beneficiaries. In addition, conservation would be a possible land use under any of the alternatives being considered in this EIS, provided the Trusts were fully compensated for the foregone development rights. Finally, current legislation (77-2-101, MCA) limits the use of conservation easements on Trust Lands. Under this statute, conservation easements may only be granted to the Montana Department of Fish, Wildlife, and Parks (FWP) for parcels that are surrounded by or adjacent to land owned by FWP as of January 1, 2001. They may be awarded to a nonprofit corporation only for parcels that are

surrounded by or adjacent to land owned by that same nonprofit corporation as of January 1, 2001. However, Alternatives B-1 and C-1 were influenced by these concepts.

2.6 DESCRIPTION OF PROPOSED ALTERNATIVES

Six program alternatives are proposed. Guidance to the development of alternatives and authority to prepare a programmatic EIS are set forth by MEPA rules including 36.2.537 and 36.2.529, ARM. Alternative A is the No Action alternative, representing a status-quo approach to real estate management on Trust Lands reflecting the on-going program of the Real Estate management Bureau of the TLMD. Alternative B assumes that development on Trust Lands would keep pace with regional rates of growth related to residential, commercial, and industrial uses. Alternative C assumes that Trust Lands would also share in the expected growth of a region but that share would represent a higher proportion of the expected growth [as compared to Alternative B]. Alternative D is a market driven alternative similar to Alternative B. Two of the alternatives also contain a “sub-alternative” related to conservation. Alternatives B1 and C1 provide a stronger emphasis for conservation strategies. In all cases conservation uses must compensate the Trust based on the market value of the “purchased” development rights.

2.6.1 Alternative A – Current Program

The REMB currently generates income from leases, licenses, sales, and easements related to a wide range of land use activities. The Bureau may also use a variety of real estate tools, such as land exchanges and land banking, to position property for future income generating potential. Leasing of land for commercial and industrial uses is an emerging source of increased revenue to the trust and residential leasing remains a viable portion of the leasing portfolio.

Trust Lands have been developed and managed historically for residential, commercial and industrial uses since statehood. The majority of residential leases were established in the late 1940's and early 1950's. The American Timber Lumber Mill, an industrial use located in the Northwest Land Office region, was developed in 1947 and portions of that operation are still active today. Since 1996, when the Department created a separate bureau to address commercial, industrial and residential uses, the management of these uses has become more proactive. A commercial Development Working Group meets annually to allocate budgets and prioritize projects in the Unit/Land offices.

Under Alternative A, the no-action alternative, the REMB would continue to share in the local real estate market on Trust Lands but to a lesser extent than what might otherwise be expected by local market conditions. Under this alternative, the Bureau would remain receptive to new income opportunities in all land use categories. Opportunities to expand the existing portfolio and keep pace with community rates

of growth would remain somewhat constrained under this alternative by funding and staffing limited to the current levels.

2.6.1.1 Relationship to Community Growth

Under this alternative, REMB would move the existing real estate program forward into the future in a fashion that remains cognizant of current market conditions. New projects would be identified and prioritized primarily based upon outside inquiries and/or proposals from DNRC personnel with land planning expertise. Under this alternative, it is expected that Trust Lands would realize less, on a proportional basis, than a fair share of the regional market growth. Estimated residential, commercial, and industrial growth under this Alternative assumes Trust Lands share of new growth would be no more than 50% of the market share expected on a land proportion basis. The projected ranges of annual growth of “rural residential” and “commercial/industrial” on Trust Lands under Alternative A through the year 20025 is estimated in Table 2-8 and Table 2-9, respectfully.

Table 2-8. Alternative A: Growth Estimates for Rural Residential Acreages on Trust Lands

Land Office Region	Growth Estimates (acres) by Time Period				
	2003-2010	2011-2015	2016-2020	2021-2025	Total
NWLO	539 - 898	351 - 585	395 - 599	374 - 623	1659-2705
SWLO	300 - 500	207 - 345	215 - 358	222 - 370	944-1573
CLO	110 - 183	212 - 353	223 - 371	233 - 358	778-1265
NELO	(10) - (6)	2 - 4	3 - 5	5 - 8	0-11
SLO	65 - 109	44 - 74	46 - 76	48 - 80	203-339
ELO	(5) - (9)	2 - 3	3 - 5	2 - 4	2-3
Total Ranges	999-1675	818-1364	885-1414	884-1443	3586-5896

Table 2-9. Alternative A: Growth Estimates for Commercial/Industrial Acreages on Trust Lands

Land Office Region	Growth Estimates (acres) by Time Period				
	2002-2010	2011-2015	2016-2020	2021-2025	Total
NWLO	127 - 212	84 - 140	103 - 171	102 - 171	416-694
SWLO	111 - 184	73 - 122	92 - 153	92 - 153	368-612
CLO	151 - 252	95 - 159	119 - 199	119 - 199	484-809
NELO	35 - 58	28 - 46	33 - 55	33 - 55	129-214
SLO	52 - 87	35 - 58	43 - 72	43 - 72	173-289
ELO	13 - 21	5 - 9	7 - 11	7 - 11	32-52
Total Ranges	489-814	320-534	397-661	396-661	1602-2670

2.6.1.2 Land Use Categories

The REMB would be open to all land use inquiries under this alternative and in some circumstances would take the lead in identifying new land use opportunities.

Some opportunities for new revenue sources may be lost due to limitations of regional staffing or expertise.

- Residential – In the last 3 years, 11 new residential leases have been created through state and local subdivision regulations. Managing the existing residential lease properties would continue to have higher priority than establishing new residential leases. New leasing opportunities would probably be associated with high value properties where leasing may remain a viable option to the lessee. Other viable approaches to residential leasing may involve apartment or manufactured home developments. Properties identified as “residential” from a highest and best use analysis could also be sold or exchanged to realize the market value of the property.
- Commercial – New commercial opportunities would continue to be identified through Department initiated projects and unsolicited inquiries. Under the current program, Trust Lands dedicated to commercial uses under lease agreements generate a state wide average of \$130 per acre over 1,812 acres dedicated to commercial uses. Recent projects are Lewis and Clark Subdivision in Bozeman, Hampton Inn in Great Falls, and Lowe’s Home Improvement Center in Kalispell.
- Industrial – New industrial opportunities would continue to be identified through department initiated projects and unsolicited inquiries. Under the current program, Trust Lands dedicated to industrial uses through lease agreements generate a state wide average of \$ 241 per acre over 872 acres dedicated to industrial uses.
- Conservation – Several major conservation projects that have occurred since 1996 including the issuance of a lease agreement for the development rights on property acquired through a land exchange from Ted Turner. In March 2004, the Land Board approved a conservation easement to the Department of Fish Wildlife and Parks on Trust Land in and adjacent to the Blackfoot Clearwater Wildlife Management Area.

Under Alternative A, the existing program, the REMB considers conservation opportunities as a priority on a percentage of those Trust Lands lying adjacent to existing conservation lands. These would include federally designated areas such as National Parks and Monuments, Wilderness Areas, Wild and Scenic Rivers; Wildlife and Game Refuges and Public/Private Conservation Easements.

The percentage would correspond to the percentage share that Trust Lands have to the entire land base of the land office. Table 2-10 identifies the number of acres per land office area that could be considered for conservation based on the current approach, over the life of the Real Estate Management Plan.

Table 2-10. Potential Conservation Acreage Under Alternative A			
Land Office	Trust Acres Adjacent to Conservation Areas	Percentage of Land Base	Acres times Percentage* (acres)
NWLO	22,233.3	3.5%	778
SWLO	12,093.2	3.1%	375
CLO	72,276.3	5.5%	3,975
NELO	66,688.7	7%	4,668
SLO	3,522.0	3.7%	130
ELO	10,464.1	6.2%	649
Total	187,277.6		10,575
*This column reflects the total estimated acres of conservation through the year 2025			

The estimated “acres” is a guide but not a cap. The success at achieving these conservation acres largely depends on general public interest and available funding by conservation groups and other interested parties.

2.6.1.3 Location Descriptors

- Urban – New retail and office commercial, industrial, and high density residential uses would continue to be primarily concentrated in urban locations.
- Suburban – Under the current program, low to medium residential density uses are considered appropriate in suburban locations as are some types of neighborhood commercial.
- Rural – Low density residential uses, recreation resorts, and resource based industrial uses are considered appropriate in rural locations under the current program. Other types of commercial are appropriate, such as communication towers and wind farms.

2.6.1.4 Project Selection & Prioritization – (Relationship to the Funnel Process)

Under the existing program of the REMB, the project selection and prioritization methodology is less structured than would be the case under the five actions alternatives. Project opportunities are more often reactive than proactive and project priorities are identified from annual meetings of a Commercial Development

Working Group. Projects are typically considered under a coarse filter analysis that addresses general site suitability with respect to the physical and natural environment as well as to the proximity to infrastructure. Consideration is also given to the availability of departmental resources that can be devoted to project development. Under Alternative A, the REMB would continue to strive for a more comprehensive approach to the project filtration process such as set forth under the “Funnel Process” in the action alternatives.

2.6.1.5 Implementation Strategies

- Land Use Authorizations
 - Leases – Under Alternative A, the REMB would continue to maintain and manage existing leases and respond to requests for new leases as resources and staff time allow. The Bureau would continue to place greater emphasis on seeking new commercial and industrial lessees rather than increasing the number of residential leases. Conservation leases would be considered on a request basis.
 - Licenses – The REMB would continue to issue licenses only in response to demand. The Bureau would not seek to increase the number of licenses it issues under Alternative A. Conservation licenses would be considered on a request basis.
 - Easements – The REMB would continue work with adjacent land owners and local government officials in response to proposed easements for a variety of public and private purposes on a case by case basis. Expanded opportunities for conservation easements would be limited under current law.
- Land Transactions
 - Land Banking – Under Alternative A, the REMB would design a land banking pilot program that would address agriculture, grazing, minerals and timber holdings. For example, the REMB might sell lower income producing grazing lands in order to purchase more lucrative agricultural lands. However, commercial, industrial and residential uses would be a limited part of this initial land banking program.
 - Land Exchanges – Under the existing program, land exchanges would occur primarily in response to inquiries. However if the staff is able to identify a clear advantage in pursuing a land exchange, the REMB may initiate a transaction within the limits of existing resources.

- Land Sales – Land sales would not be a high priority. However, objectives related to new residential opportunities would likely be achieved through “sale” as opposed to leasing. The Department would continue the existing residential leasing program.
- Marketing
 - Advertising – Advertising would be accomplished with generally “passive” information through web sites and RFP processes mostly related to commercial and industrial inquiries.
 - Real Estate Affiliations – While REMB staff might work with individual real estate professionals in managing its commercial, industrial and residential properties, it is unlikely that any resources would be committed to affiliating with real estate or development organizations or in preparing real estate marketing materials for wide spread distribution.
 - RFP Process – Under Alternative A, the REMB would initiate an RFP process when there is a demonstrated interest in a particular property.

- The Real Estate Management Bureau – Under Alternative A, the Bureau would maintain its current real estate management approach. Largely, projects would be identified by outside interests. Little time would be spent working with local government or with potential developers to address necessary entitlements for the development of transitional lands. Efforts would generally be spent developing those projects that would provide the highest return for the least amount of effort.
- The Developer – The Developer, under this alternative, would provide the primary impetus for concept development and project design. The Bureau would be more likely to entertain proposals where the potential private user of Trust Land would be responsible for installing needed infrastructure, seeking appropriate land use regulatory designations and obtaining required approvals
- City/County Local Governments – Under Alternative A, the Bureau would coordinate with City and County on limited basis. All local regulatory processes related to the development of Trust Lands would be addressed. However, while the Bureau may participate in expressing its opinions regarding city planning and the availability of infrastructure, it would not consistently engage in efforts to coordinate

with the local government to achieve entitlement objectives. Current efforts of this form of coordination include a neighborhood planning effort in the area of Whitefish, involving the city of Whitefish and Flathead County. The city of Kalispell is also discussing options for locating a water tower and fire station on Trust Land in Kalispell.

2.6.1.7 Administration

- **Staffing and Staffing Expertise** – Under Alternative A, staffing and staffing expertise would remain unchanged. There may be some limited sharing of personnel among Land Offices where certain expertise may be brought to a specific project on an as needed basis.
- **Funding** – The REMB would not require additional funding allocations under this alternative. Funding to seek improved entitlements to property would not generally be available.
- **Statutory Authority** – It may be necessary to expand the authority to create conservation easements under this Alternative. Otherwise, legislative actions would probably be limited to issues of clarification and authority related to existing statutes.

2.6.1.8 Financial Considerations

- **Revenue to Trust** – Revenues to the Trust would increase to some extent under Alternative A. Revenue would be from existing licenses and leases and from residential land sales and expanded ground leases for commercial and industrial uses. Revenue would not be proportional to the projected market growth.
- **Property Tax Benefit** – Under Alternative A, the property tax benefit would be attributable to beneficial use taxes associated with industrial and commercial leases and personal property taxes paid on residential improvements. The conversion of lands to the private sector through sale and exchanges would be limited. Lands held for conservation purposes would likely be exempt from ad valorem taxes, but may pay for services or infrastructure improvements.
- **Equalization Taxes** – The allocation of money to counties in lieu of taxes would not be substantially affected under this alternative.
- **Job Creation** – Trust lands would be sharing in expected community growth, so to that extent, development on trust lands would not actually be creating any new jobs. Under this alternative, it could be assumed that Trust Lands would share in 2-5% of new development.

Therefore, it could be concluded that Trust Lands would be responsible for 2-5 % of the new jobs.

- Asset Management – Lands classified as “other” would not appreciably reduce the number of acres associated with the other TLMD Bureaus. Within the REMB, development would occur largely in response to unsolicited proposals for commercial, industrial and conservation purposes. Maintaining existing residential leases would have priority over new leases. New residential objectives would be achieved largely through “sales”.

2.6.1.9 Environmental Review and Public Involvement

- Local Land Use Regulations – The REMB would keep the local governing bodies and associated planning staff informed of their activities and would follow the local regulatory process for permitting various land uses as needed. The Bureau staff would work to remain informed of local land use policy development and its potential impact on state lands. However, DNRC would not, for the most part, actively engage in the formulation of policies and regulations related to land use.
- In those cases where specific land use opportunities present themselves, the REMB may, from time to time, approach the local governing bodies to learn of any potential conflicts with local land use policies and what actions should be taken to mitigate any anticipated impacts.
- MEPA – In most cases, the Bureau would continue to strive to address all MEPA requirements and would not seek any exclusions or exemptions. The Bureau would work to coordinate public involvement requirements under MEPA with local public hearing schedules to help streamline the review process and reduce costs.

2.6.2 Alternative B - Diversification of Portfolio

Alternative B seeks to secure a broad based portfolio of income producing properties. This would be accomplished through proactive strategies intended to keep pace with regional market growth and by capturing opportunities identified by others.

2.6.2.1 Relationship to Community Growth

The range of projected annual growth of “rural residential” and “commercial/industrial” on Trust Lands under Alternative B is shown in Tables 2-11 and 2-12, respectfully. These values represent a direct proportion of shared growth

based upon the proportion of Trust Lands to other land ownerships (minus “federal” and “water”) within a specific land office region.

Table 2-11. Alternative B: Growth Estimates for Rural Residential Acreages on Trust Lands

Land Office Region	Growth Estimates (acres) by Time Period				
	2003-2010	2011-2015	2016-2020	2021-2025	Total
NWLO	1077 – 1795	702 – 1170	718 – 1196	747 – 1245	3244-5406
SWLO	600 – 1000	414 – 690	428 – 714	444 – 740	1886-3144
CLO	219 – 365	424 – 706	446 – 743	467 – 776	1556-2590
NELO	(12) – (20)	5 – 8	6 – 10	8 – 14	7-12
SLO	131 - 218	88 – 146	92 - 153	96 – 160	407-677
ELO	(11) – (18)	2 – 4	6 - 10	4 - 6	1-2
Total	2004-3340	1635-2724	1696-2826	1766-2165	7101-11055

Table 2-12. Alternative B: Growth Estimates for Commercial/Industrial Acreages on Trust Lands

Land Office Region	Growth Estimates (acres) by Time Period				
	2002-2010	2011-2015	2016-2020	2021-2025	Total
NWLO	254 – 423	168 – 280	185 – 309	205 – 342	812-1354
SWLO	221 – 368	146 - 244	164 – 274	183 – 305	714-1191
CLO	303 – 505	190 – 317	215 – 358	238 – 397	946-1577
NELO	70 – 117	55 – 92	60 – 100	66 – 110	251-419
SLO	104 – 174	69 – 115	77 – 129	86 – 144	336-562
ELO	26 - 43	11 - 18	12 - 21	14 - 23	63-105
Total	978-1630	639-1066	713-1191	792-1321	3122-5208

2.6.2.2 Land Use Categories

Under this alternative, the Bureau would attempt to balance the real estate portfolio with uses associated with each of the land use categories. Projects would be prioritized on a statewide basis to benefit from shared expertise and available funding.

- Residential – Income from lands with residential values would be realized primarily through land sales and land banking. Some leasing of land for residential uses may be pursued in urban locations and in high value amenity locations.

- Commercial – Commercial leasing opportunities would be pursued primarily in urban and highway locations. Suburban and rural opportunities would primarily be identified by outside interests.
- Industrial – Industrial opportunities would be prioritized in identified growth areas where adequate infrastructure is available to serve the intended uses. Public requests for industrial uses on Trust Lands, such as sewage treatment facilities, would be evaluated on a case-by-case basis.
- Conservation – Under Alternative B, the REMB would consider conservation opportunities a priority on a percentage of those Trust Lands lying within one half mile of land with existing conservation designations. These would include federally designated areas such as National Parks and Monuments, Wilderness Areas, Wild and Scenic Rivers; Wildlife and Game Refuges and Public/Private Conservation Easements. The percentage of conservation uses on Trust Lands would correspond to the percentage share that Trust Lands have of the entire land base. Conservation use would generally be achieved through the sale of development rights on lands with residential values. Table 2-13 identifies the number of acres per land office area that could be considered for conservation based on this approach, over the life of the Real Estate Management Plan. The acreages presented are an estimate only and do not intend to suggest a limit or cap to the acres that could be placed in conservation use. Likewise, the purchasing of development or conservation rights is not in fact a utilization of those development rights, and therefore, those acres would not be calculated in the assessment of growth of residential development.

Table 2-13. Potential Conservation Acreage Under Alternative B

Land Office	Trust Acres within 0.5 miles of Conservation Lands	Percentage of Land Base	Acres times Percentage (Acres)*
NWLO	38,501.9	3.5%	1,348
SWLO	26,223.7	3.1%	813
CLO	130,830.8	5.5%	7,196
NELO	101,302.7	7%	7,091
SLO	12,319.2	3.7%	456
ELO	20,947.3	6.2%	1,299
Total	330,125.6		18,203

*Column represents total conservation acres through the year 2025

2.6.2.3 Location Descriptors

New revenue generating projects would be linked closely to regional market conditions. Under this alternative, the REMB would attempt to attain a proportional share of the anticipated market growth of a region. In general, projects would be located on sites with high suitability ranking (see Table 2-6).

- Urban – New retail and office commercial opportunities and high density residential uses would primarily be located on Trust Lands located in close proximity to urban locations.
- Suburban – Low to medium residential density uses would be appropriate in suburban locations as would some types of neighborhood commercial developments.
- Rural – Low density residential uses, recreation resorts, and resource based industrial uses would be appropriate to rural locations. Other types of commercial may also be appropriate, such as communication towers.

2.6.2.4 Project Selection & Prioritization – (Relationship to the Funnel Process)

The Bureau would make use of the funnel process as described in Section 2.3.1 and assume a more active role [as compared to Alternative A] in creating new revenue opportunities for the trusts. This would include the identification of lands suitable for development and the active pursuit of the entitlements that would help position the lands in the market place. In addition, more staff resources would be directed towards selecting and ranking projects for more specific project level review.

2.6.2.5 Implementation Strategies

Under Alternative B, the REMB would make use of a variety of real estate tools to meet its objectives to keep pace with community growth. In higher growth areas, the REMB is likely to engage in various transactions in order to position itself to take advantage of the available market. In areas where there is little or no growth, the REMB may chose to sell properties and buy lands or existing improvements that can provide a greater return elsewhere. Where opportunities for joint ventures present themselves, the Bureau may forge relationships with private and/or public developers in order to bring more resources to site and project development.

- Land Use Authorizations
 - Leases – The REMB would continue to maintain and manage existing leases and respond to requests for new leases under Alternative B. While some residential leases would be considered,

overall, greater emphasis would be placed on seeking new commercial and industrial lessees.

- Licenses – Under Alternative B, the Bureau would continue to respond to individual license requests, but generally licensing would have a lower priority than under Alternative A. Greater emphasis, however, would be placed on proposals from potential lessees that offer a higher projected rate of return to the trust.
- Easements – The REMB would work with adjacent land owners and local government officials in response to proposed easements for a variety of public and private purposes on a case by case basis. Easement opportunities on lands that have conservation values would be limited pending changes to existing laws.
- Land Transactions
 - Land Banking – Under Alternative B, the REMB would use land exchanges to acquire lands with higher revenue generating potential and improved public access. In addition, the Bureau would also, to some extent, use land banking to acquire lands that are well positioned to take advantage of future revenue generation and lands that have an existing revenue stream (existing revenue producing activities on the land). Under current rules, the role of land banking may not be an effective tool for repositioning land values into existing developed properties.
 - Land Exchanges – Under Alternative B, the REMB would respond to inquiries related to land exchanges. In addition, the Bureau would seek land exchange opportunities that would result in better present and future income. The REMB would also consider land exchanges that would result in a mixed acquisition wherein equal acres would be achieved in addition to other property that would have immediate income potential.
 - Land Sales – Land sales and land banking would be the primary tools to achieve the residential objectives. However, leasing of land for residential uses would be considered if land sales or land banking could not be accomplished. The Department would continue the existing residential leasing program.
- Marketing
 - Advertising – The REMB would make use of a number of lower cost advertising strategies to promote land use objectives on state Trust Lands. These would include both print and electronic media and the target markets would generally be regional. Location signs,

and advertisements in real estate circulars would also be utilized. The Bureau would initiate a specific marketing strategy to promote conservation objectives.

- Real Estate Affiliations – The REMB would work with real estate development organizations in order to promote Trust Land properties more widely. The Bureau staff would contact real estate professionals to assist in marketing lands and join real estate professional organizations in order to achieve greater visibility in the community.
- RFP Process – Generally, the RFP Process would be initiated in response to specific inquiries. However, in some cases the REMB might work to enhance a property's market position. This would include the improvements of various entitlements associated with the land including physical infrastructure and land use designations prior to the issuance of an RFP.

2.6.2.6 Project Management Roles

- The Real Estate Management Bureau – The REMB would take a more active role in the identification, development, and management of residential, industrial, and commercial uses. In addition to responding to unsolicited proposals, the Bureau would identify potential projects and undertake preliminary concept development and feasibility analyses in preparation for solicitation of project proposals.
- The Developer – The REMB would work with potential developers to secure necessary entitlements including infrastructure and land use designations as needed. This might be accomplished through partnership agreements and other cooperative arrangements. While the REMB would take a greater role in project development than under Alternative A, the private (or public) developer would typically bear the majority of the costs associated with site preparation and with meeting any associated regulatory requirements.
- City/County Local Governments – The REMB would work closely with local governing bodies to assure a well-planned program of development. The relationship would include participation in local land planning decision making, which could affect the future potential of Trust Lands. The Bureau would also work closely with city and county governments as they plan for infrastructure development. At the project level, the REMB would coordinate with local governments to comply with land use regulatory processes including public

involvement requirements and to coordinate those processes with DNRC responsibilities under MEPA.

2.6.2.7 Administration

- **Staffing and Staffing Expertise** – Alternative B may require additional staff. Current staff levels may not be adequate to develop and evaluate project proposals or to work with developers and government officials. Specific expertise in planning, real estate appraisal, marketing, engineering, and finance would be particularly important. Three additional employees over the existing staffing (Alternative A) may be necessary. The Bureau would emphasize shared expertise and establish teams of project planning and development personnel that could be assigned based on state-wide priorities. Whenever possible, staffing needs would be achieved through reassignment of vacant FTEs (Full Time Equivalent Employees).
- **Funding** – Alternative B may require the allocation of additional financial resources to the REMB. Additional funding may be necessary for increased staffing and project support, including costs to improve land entitlements. Additional funding sources may be sought to achieve program objectives through a development improvement fund (revolving) and a percentage share of lease and sale revenue. Up to \$500,000 per year would be sought to improve land entitlements.
- **Statutory Authority** – Legislation would be necessary to authorize a special development revolving fund and any other special funding requests. A change in the law pertaining to conservation easements would also be necessary to achieve conservation objectives.

2.6.2.8 Financial Considerations

- **Revenue to Trust** – New revenue sources would primarily be from (1) land sales of unimproved residential valued properties, (2) commercial leases, (3) industrial leases, and (4) conservation licenses, leases, and easements. Residential properties (unimproved) provide the largest opportunity for new income.
- **Property Tax** – The property tax benefit would be attributable to beneficial use taxes associated with industrial and commercial leases and personal property taxes paid on residential improvements. In addition, it is anticipated that unimproved residential-valued properties would be converted to private ownership through sales and land banking, creating additional property tax revenue for the community. Lands held for conservation purposes would likely be exempt from ad

valorem taxes, but may pay for services or infrastructure improvements.

- **Equalization Payments** – Under this Alternative, the amount of land converted to “other” remains well under 1% (0.3) of the total Trust Land area. As such, there would be no appreciable change expected to county equalization receipts. However, tax revenue from leased and sold properties would increase for most of the central and western counties.
- **Job Creation** – Since Trust Lands would only be sharing in the expected growth of a community; no new jobs would actually be created. However, under this alternative, it could be assumed that Trust Lands would experience 4-10% of new development and so it could be concluded that Trust Lands would be responsible for 4-10 % of the new jobs.
- **Asset Management** – The REMB would expand its current role relative to the other Trust Land portfolios (timber, agriculture, grazing and minerals). Within the REMB, development would occur both in response to unsolicited proposals and through Bureau initiated activities. Management would emphasize development of those properties and uses that would provide the greatest return relative to any investment required.

2.6.2.9 Environmental Review and Public Involvement

- **Local Land Use Regulations** – The REMB would work with local governing bodies to identify ways to engage in development activities within the framework of local land use policies and regulatory processes. From time to time, the REMB would participate in discussions at the local level regarding policy formulation and work to coordinate its planning processes with those of the local governments, particularly when such activities would enhance revenue opportunities. The REMB would also engage in neighborhood planning processes that serve to provide necessary entitlements for development with respect to local land use policies and regulations. Projects would meet or exceed land use development standards as set forth in local, state and federal regulations and policies. In those cases where local jurisdictions do not have land use regulations and policies in place or in those cases where local policies and regulations are limited, the DNRC would follow model regulations formulated at the state level, if available, or work with local officials to identify preferred development standards.

- MEPA – All projects would be developed in compliance with MEPA. For those projects approved through the local regulatory processes, MEPA and associated analyses would largely be achieved by adhering to the local review processes.

2.6.3 Alternative B-1: Diversified Portfolio – Conservation Priority

Alternative B-1 incorporates all of the elements of Alternative B with the exception of Conservation uses on Trust Lands. As under Alternative B, the REMB would consider conservation opportunities a priority on a percentage of those Trust Lands lying within one half mile of land with such existing conservation lands National Parks and Monuments, Wilderness Areas, Wild and Scenic Rivers; Wildlife and Game Refuges and Public/Private Conservation Easements. The REMB would strive to achieve a percentage of conservation uses on Trust Lands that would correspond to the percentage share that Trust Lands have of the entire land base. Conservation use would generally be achieved through the sale of development rights on lands with residential values. Under Alternative B no development rights purchases would apply towards the total estimated share (acreage) of residential development on trust lands.

Under Alternative B-1, the purchase of residential rights, up to one-half of the 11,055 acres estimated for rural residential growth, could be counted towards the trust lands projected share of “residential” development.

2.6.4 Alternative C - Focused Portfolio

Under this alternative, the REMB would actively evaluate the Trust Land revenue opportunities on a continual basis to determine a full range of project opportunities. The Bureau would react quickly to market opportunities and attempt to realize a higher proportion of the anticipated growth in regional markets.

2.6.4.1 Relationship to Community Growth

The projected ranges of annual growth of “rural residential” and “commercial/industrial” on Trust Lands under Alternative C are shown in Tables 2-14 and 2-15. Depending on the land office region, growth of residential, commercial, and industrial uses on Trust Land would range between 8 and 20% of the anticipated growth of those regions. These percentages are double the values reflected under Alternative B and assume that Trust Lands would experience a higher proportion (on a per acre ratio with other lands) of residential, commercial, and industrial uses.

Table 2-14. Alternative C: Growth Estimates for Rural Residential Acreages on Trust Lands

Land Office Region	Growth Estimates (acres) by Time Period				
	2003-2010	2011-2015	2016-2020	2021-2025	Total
NWLO	2156 – 3592	1403 – 2339	1436 – 2394	1495 – 2491	6490-10816
SWLO	1200 – 2000	829 – 1381	857 – 1429	888 – 1480	3774-6290
CLO	438 – 730	847 – 1411	891 – 1485	931 – 1551	3107-5177
NELO	(24) – (40)	8 – 14	12 – 20	17 – 29	13-23
SLO	289 – 481	176 – 293	183 – 305	193 – 321	841-1400
ELO	(20) – (34)	5 - 9	12 - 20	8 - 13	5-8
Total	4039-6729	3268-5447	3391-5653	3532-5885	14230-23714

Table 2-15. Alternative C: Growth Estimates for Commercial/Industrial Acreages on Trust Lands

Land Office Region	Growth Estimates (acres) by Time Period				
	2002-2010	2011-2015	2016-2020	2021-2025	Total
NWLO	508 – 847	336 – 559	371 – 618	410 – 683	1625-2707
SWLO	442 – 737	293 – 488	328 – 547	366 – 610	1429-2382
CLO	605 – 1009	381 – 634	430 – 716	476 – 793	1892-3152
NELO	140 – 233	111 – 185	120 – 200	133 – 221	504-839
SLO	208 – 347	138 – 230	155 – 258	173 – 288	674-1123
ELO	51 - 85	21 - 35	25 - 41	27 - 45	124-206
Total	1954-3258	1280-2131	1429-2380	1585-2640	6248-10409

2.6.4.2 Land Use Categories

Projects that return the highest net revenue to the trusts would be given higher priority under this alternative.

- Residential – A high proportion of Trust Lands suitable for development are considered to have residential land values. The REMB would attempt to realize a proportionally higher share of the residential market in growth regions of the State. Revenue would be generated by land sales, land banking, and through some cooperative development agreements with the private sector. Additional leasing opportunities would be sought through programs offered by local governments and such agencies as Fannie Mae.

- Commercial – Commercial uses on Trust Lands would be a priority objective under this alternative. Revenue opportunities would be sought through leases for new development and acquisition of existing commercial uses.
- Industrial – Under this alternative, the REMB would attempt to secure long-term leases with industries, including high-tech firms. This would require improving entitlements on certain urban lands and lands associated with extensive infrastructure systems. Opportunities would also be actively pursued on rural lands that may be suitable for resource-based industries.

Conservation – Under Alternative C, the Bureau would consider conservation opportunities as a high priority on a percentage of those Trust Lands that lie within one mile of lands with conservation values. The percentage of conservation uses on Trust Lands would correspond to the percentage share that Trust Lands have of the entire land base. Conservation use would generally be achieved through the sale of development rights on lands with residential values. However, Trust Land Acres that are placed in conservation use through the purchase of development rights would not be “counted” in the calculation of developed residential acreage for accounting purposes under Alternative C (see Chapter 4). Table 2-16 identifies the number of acres per land office area that could be considered for conservation based on this approach, over the life of the Real Estate Management Plan. The acreages presented are estimates only and do not intend to suggest a limit to the acres that could be placed in conservation use.

Table 2-16. Potential Conservation Acreage Under Alternative C			
Land Office	Trust Acres Within One Mile of Conservation Areas	Percentage of Land Base	Acres times Percentage (acres)*
NWLO	50,866.8	3.5%	1,780
SWLO	38,968.3	3.1%	1,208
CLO	176,376.3	5.5%	9,701
NELO	134,821.7	7%	9,438
SLO	19,956.5	3.7%	738
ELO	25,057.8	6.2%	1,554
Total	446,047.4		24,419
*Column represents total conservation acres through year 2025			

2.6.4.3 Location Descriptors

Under this alternative, the Bureau would explore all opportunities for increased revenue to the trusts. Target areas of opportunity would generally be associated with

identified growth regions of the state and lands with medium to high suitability (see Table 2-6).

- Urban – Urban locations within growing communities would be given high priority for new income opportunities. Commercial, industrial, and residential developments would be pursued in the form of new leases on raw land or through acquisition of existing developed properties.
- Suburban – Revenue for residentially valued land would be realized through land sales, land banking, joint ventures, and other real estate practices. Most of the new revenue opportunities would be “residential”.
- Rural – Low density residential uses, recreation resorts, and resource based industrial uses would be appropriate to rural locations. Industrial uses may also be appropriate to rural locations having convenient access to travel corridors and other necessary infrastructure. Other types of commercial may also be appropriate, such as communication towers.

2.6.4.4 Project Selection & Prioritization – (Relationship to Funnel Process)

The REMB would be fully involved in project development at all levels of analysis – from the identification of lands suitable for development to project level design and evaluation. The project selection and development process would also include, in certain circumstances, the active pursuit of entitlements that would make Trust Lands more marketable including, for example, the installation of infrastructure.

2.6.4.5 Implementation Strategies

The REMB would make use of a wide range of real estate development tools in order to meet land use and revenue objectives. Bureau staff would both initiate and respond to land use proposals for a variety of uses. When appropriate, the REMB would form partnerships with other public and/or private entities to enhance those financial and human resources that may be brought to a project. For example, the REMB might work with a private developer to provide infrastructure to prepare a commercial or industrial site for leasing.

- Land Use Authorizations
 - Leases – The REMB would actively pursue additional commercial and industrial leases in areas where market conditions warrant this type of development. Leases would also be considered for high value residential properties with scenic and recreational amenities.

In urban areas, the REMB would consider single family, multi-family, pre-fabricated, and mobile home residential leases.

- Licenses – The REMB would emphasize long-term licenses with a high rate of return over short-term leases. “Walk in” requests for individual short-term leases would generally be discouraged.
- Easements – The REMB would continue to respond to requests for easements on state lands for both private and public purposes. However, those proposals that provide greater income to the Trust would be favored. Conservation easements would be difficult to convey under current legal constraints.
- Land Transactions
 - Land Banking – The REMB would use Land Banking to acquire existing properties with high revenue streams and to provide increased public access to Trust Lands. The Bureau would also use Land Banking (with proper legislative authorization) to position itself in areas of high growth, including purchasing existing developed uses in areas where Trust Lands are not well positioned to capture revenue opportunities.
 - Land Exchanges – The REMB would consider those land exchanges that would result in the acquisition of both undeveloped land and land with improvements that provide an existing income stream.
 - Land Sales – Land sales under Alternative C would be considered in conjunction with joint ventures and partnerships between the DNRC and private and/or public entities. Under this approach, the joint venture/partnerships would make physical improvements to the land and seek those land use designations that would improve overall marketability. Once the maximum entitlements are achieved, the land would be sold and the partners would share in the profits associated with the improvements. Most of the residential objectives for new residential growth would be accomplished through land sales. The Department would continue the existing residential leasing program.
- Marketing
 - Advertising – Alternative C would involve a very active marketing component. In addition to print and electronic advertising strategies, the REMB would engage in a wide-reaching aggressive campaign that might include an interactive web page to respond to inquiries and the preparation of highly produced development

packets and brochures with information on available lands and leases. The REMB might also consider working with a professional marketing firm in advertising its properties through brochures, video presentations and various computer and Internet strategies.

- Real Estate Affiliations – The REMB would work closely with local, state and national real estate and development organizations. Affiliations with these professional groups would be key in promoting state Trust Land properties. Bureau staff would be active members of local organizations and attend regional and national real estate conferences and meetings in order to promote its programs and offerings.
- RFP Process – Under Alternative C, the REMB would engage in an aggressive effort to market its lands through the RFP Process. Prior to issuance of an RFP, however, work would be done to improve land entitlements through a number of mechanisms including, but not limited to:
 - seeking appropriate zoning designations
 - annexation
 - growth policy amendments
 - arranging for and installing necessary infrastructure
 - adding amenities and enhancements
 - identifying potential public and private partners

The RFP process would include not only traditional legal notices but targeted solicitations as well.

2.6.4.6 Project Management Roles

- The Real Estate Management Bureau – Alternative C would expect the REMB to actively manage residential, conservation, industrial, and commercial uses on Trust Lands. While the REMB would continue to respond to unsolicited proposals, greater emphasis would be placed on Department initiated project development to assure the greatest revenue return.
- The Developer – The REMB would work closely with potential developers to establish project feasibility in the market place. Partnership agreements with private entities would be pursued, as appropriate, in preparing market studies, developing infrastructure and in preparing sites for construction. Under Alternative C, the Bureau would also focus on the acquisition of existing buildings. The REMB could then enter into an agreement with a project manager to expand, rehabilitate, and/or manage these properties.

- City/County Local Governments – Bureau staff would work closely with local jurisdictions in land planning and infrastructure development. Whenever possible, the REMB would seek the most advantageous policy decisions in light of revenue objectives. REMB would work cooperatively with local governments to provide infrastructure and services to Trust properties as resources and opportunities permit.

2.6.4.7 Administration

- Staffing and Staffing Expertise – Alternative C may require a substantial commitment of staff. While the Bureau would still try to share expertise among Land Offices, the level of activity may require a larger special resources staff over all. As under Alternative B, expertise would be needed in planning, real estate, appraisal, engineering, marketing, and finance. It is estimated that four additional staff may be required as compared to Alternative A.
- Funding – Additional funding may be necessary for increased staffing and project support, including costs to improve land entitlements. Additional funding sources would be sought to achieve program objectives through a development improvement fund (revolving) and a percentage share of lease and sale revenue. Up to \$1 million per year would be sought to improve land entitlements. The economic analysis by Jackson (2004) included in Appendix D suggests that increased funding to improve land entitlements would generate a greater return to the Trust. To the extent possible, increased staffing needs would be accomplished with reassignment of vacant FTEs.
- Statutory Authority – Legislation would also be necessary to authorize a special development revolving fund and any other special funding requests. A change in the law pertaining to conservation easements would also be necessary to achieve conservation objectives.

2.6.4.8 Financial Considerations

- Revenue to the Trust – New revenue sources would primarily be from (1) land sales of unimproved residential valued properties, (2) commercial leases, (3) industrial leases, and (4) conservation licenses, leases, and easements. Residential properties with improved entitlements provide the largest opportunity for new income. Leasing of residential properties following land development would be pursued to a greater extent than anticipated by the other alternatives.

- **Property Tax** – Under Alternative C, the property tax benefit would be attributable to beneficial use taxes associated with industrial and commercial leases and personal property taxes paid on residential improvements. In addition, it is anticipated that some residential properties would be converted to private ownership, creating additional property tax revenue for the community. Purchase of existing buildings and infrastructure for lease would have no immediate affect on the tax base. Lessees would continue to pay all real and personal property taxes. Over time, improvements made to facilities could increase the property tax benefit to the community
- **Equalization Payments** – There would be no appreciable change expected to county equalization receipts since lands converted to “other” remains a small percentage of the total Trust Land area. However, property tax revenue from leased and sold properties would increase for most of the central and western counties.
- **Job Creation** – Since Trust Lands would only be sharing in the expected growth of a community, no new jobs would actually be created. However, under this alternative, it could be assumed that Trust Lands would realize 8-20% of new development and so it could be concluded that Trust Lands would be responsible for 8-20% of the new jobs.
- **Asset Management** – Lands classified as “other” would not appreciably reduce the number of acres associated with the other TLMD Bureaus. Within the REMB, emphasis would be placed on those properties that are positioned well to take advantage of market growth over time. This might include properties that are not currently in close proximity to infrastructure or that may not be appropriately zoned but would ultimately provide a favorable return. Management emphasis would shift slightly in favor of long term leases on commercial and industrial properties, management of existing developed properties acquired through land banking, and joint ventures/partnerships to develop residential lands.

2.6.4.9 Environmental Review and Public Comment

- **Local Land Use Regulations** – Under Alternative C, the REMB would have an ongoing, active role in local land use planning activities. Participation in local planning processes would focus on improving entitlements to raw land. Bureau staff would actively participate in local government processes to develop, amend or apply growth plans, zoning designations, subdivision, annexation and development agreements or other policies or regulations where there is the

possibility of increasing revenue for the trust beneficiaries. The REMB would focus its neighborhood planning processes on maximizing revenue. Local land use policies and regulatory processes would be followed.

- MEPA – All projects would be developed in compliance with MEPA. For those projects approved through the local regulatory processes, MEPA and associated analyses would largely be achieved by adhering to the local review processes.

2.6.5 Alternative C-1: Focused Portfolio – Conservation Priority

Alternative C-1 incorporates all of the elements of Alternative C with the exception of Conservation uses on Trust Lands. As under Alternative C, the REMB would consider conservation opportunities a priority on a percentage of those Trust Lands lying within one mile of lands with existing conservation objectives, such as lands located within National Parks and Monuments, Wilderness Areas, Wild and Scenic Rivers; Wildlife and Game Refuges, and Public/Private Conservation Easements. The REMB would strive to achieve a percentage of conservation uses on Trust Lands that would correspond to the percentage share that Trust Lands have of the entire land base. Conservation use would generally be achieved through the sale or leasing of development rights on lands with residential values. However, unlike Alternative C where no development rights purchases would apply towards the total estimated share of residential development on trust lands, (again as in Alternative B-1) up to one-half of the total estimated rural residential estimated share of 23,7114 acres could be achieved through purchase of development rights on rural lands having “residential” as the highest and best use.

2.6.6 Alternative D: Focused Entitlements

Alternative D is a blending of alternatives A, B, B-1, C, and C-1 identified in the DEIS. The goal of “D” is to share proportionately with anticipated community growth (as proposed under “B”) but the philosophy of “D” is to focus more on improving land entitlements to maximize income to the trusts and comply with local, state, and federal regulations. Proactive land use planning, as particularly emphasized in Alternative C, is a central theme to achieving desired land entitlements with outcome objectives that promote good community planning. The level at which this alternative may be implemented will be dependent on the vigor of the real estate market, the position of trust lands in those growing markets, and level of staffing and associated budgets.

2.6.6.1 Relationship to Community Growth

Tables 2-11 and 2-12 identify the acres of “rural residential” and “industrial/commercial” that might develop on trust lands through the life of the plan and would be generally applicable to Alternative D. These estimates are not intended to be targets that must be achieved by each of the area land offices.

(Targets are the list of projects identified through the Project Selection Process.) The actual outcome of developed acreages is dependent on the position of state trust lands in growing markets, staffing (type and number), and budgets. Successful implementation could achieve acreage numbers in the range of Alternative C in areas where trust lands are well positioned in growing markets with adequate staffing and budgets. The status-quo situation could result (with numbers similar to those identified for Alternative A) if the philosophy of D (staffing, funding, markets and position of trust lands, etc) is not accomplished. The status-quo situation may reflect low entitlements and the former (successful implementation) high entitlements, which also correspond to low and high number of acres, projects, and rates of return, respectfully. In all cases, DNRC would seek to increase the entitlements to properties that are included in the project list. The preferred goal is to match the market (as further defined in the Physical Suitability Filter) of a given land office region (philosophy of B), regardless of whether those resulting numbers may be high or low to the acreage estimates identified by alternative. For monitoring purposes, the table of acreages shown in Tables 2-11 and 2-12 might be useful as “goals” or guidelines in helping to define progress towards achieving the selected management philosophy of the Plan. However, an acreage “cap” is proposed that would trigger a mandatory reevaluation of the plan if a certain level of developed acreages were exceeded. This is discussed further in Section 2.6.6.4 and in the monitoring portion of Chapter 4.

2.6.6.2 Land Use Categories

Under this alternative, the Bureau would attempt to balance the real estate portfolio with uses associated with each of the land use categories. Projects would be prioritized on a statewide basis, including those identified by outside sources.

Residential – Income from lands with residential values would be realized primarily through land sales and land banking. Some leasing of land for residential uses may be pursued in urban locations and in high value amenity locations.

Commercial – Commercial leasing opportunities would be pursued primarily in urban and highway locations. Suburban and rural opportunities would primarily be identified by outside interests.

Industrial – Industrial opportunities would be prioritized in identified growth areas where adequate infrastructure is available to serve the intended uses. Public requests for industrial uses on Trust Lands, such as sewage treatment facilities, would be evaluated on a case-by-case basis.

Conservation – The open space or parklands designated through zoning or subdivision regulations would also achieve conservation strategies under this alternative. The REMB would consider conservation opportunities a priority on a percentage of those Trust Lands lying within one half mile of land with existing

conservation designations. These would include federally designated areas such as National Parks and Monuments, Wilderness Areas, Wild and Scenic Rivers, Wildlife and Game Refuges, and Public/Private Conservation Easements. The percentage of conservation uses on Trust Lands would correspond to the percentage share that Trust Lands have of the entire land base. Conservation use would generally be achieved through the sale of development rights on lands with residential values. Table 2-13 identifies the number of acres per land office area that could be considered for conservation based on this approach, over the life of the Real Estate Management Plan. The acreages presented are an estimate only and do not intend to suggest a limit or cap to the acres that could be placed in conservation use. Nor would conservation opportunities be limited to a half-mile radius of existing conservation-type lands. The purchasing of development or conservation rights is not in fact a utilization of those development rights, and therefore, those acres would not be calculated in the assessment of growth of residential development.

2.6.6.3 Location Descriptors

New revenue generating projects would be linked closely to regional market conditions. Under this alternative, the REMB would attempt to attain a proportional share of the anticipated market growth of a region. In general, projects would be located on sites with high suitability rankings (see Table 2-6).

Urban – New retail and office commercial opportunities and high density residential uses would primarily be located on Trust Lands located in close proximity to urban locations.

Suburban – Low to medium residential density uses would be appropriate in suburban locations as would some types of neighborhood commercial developments.

Rural – Low density residential uses, recreation resorts, conservation lands, and resource based industrial uses would be appropriate to rural locations. Other types of commercial may also be appropriate, such as communication towers.

2.6.6.4 Project Selection & Prioritization – (Relationship to Funnel Process)

Under alternative D, the projected growth estimates for developed uses on trust lands would be guided by the philosophy of the Plan and not solely on achieving a particular acreage target. As previously suggested, the outcome for trying to implement the philosophy of “D” could result in a range of outcomes from A-C, depending on such uncertainties as funding, staffing, and market conditions. Notwithstanding the above caveats, Alternative D is suggesting that a development cap be identified to provide a defined event that would trigger reevaluation of the Plan (Table 2-17). The identified limits are within the range of the DEIS alternatives and attempt to provide some flexibility for reacting to changing market conditions that may occur over the next 21 years. These ‘end” caps could also be linked to

interim time period assessments (see monitoring section) to determine whether in-course corrections may be necessary before year 20025.

Table 2-17. Alternative D: Development Caps on Trust Lands Through 2025

Land Office Region	Growth Estimates (acres)	
	Residential	Commercial/Industrial
NWLO	10,816	1,354
SWLO	6,290	1,191
CLO	5,177	1,577
NELO	23	419
SLO	1,400	562
ELO	8	105

Under Alternative D, conservation strategies would follow those outlined for Alternative B (See Section 2.6.2.2).

General outcome objectives for developed or sold properties would be as follows:

Urban: On properties located within or adjacent to cities, the proposed project would be expected to tie into city infrastructure whenever possible and be designed to city standards, including alignment to adjoining city streets. Urban densities would be expected.

Suburban: Suburban properties would be built to complement the land use of adjoining properties and reflect local street patterns and design standards.

Rural: In rural locations with residential land values, entitlements would be sought, whenever feasible, to promote clustering and the provision of contiguous open space. Lot density allowance would be determined to achieve maximum open space; i.e., as density increases through clustering, the developer can purchase more open space. Whenever practical, the open space would continue to be managed by DNRC for its historical use. Joint ventures with developers could also be used to promote clustering and open space objectives.

2.6.6.5 Implementation Strategies

The philosophy of Alternative D for implementation strategies is similar to that described by Section 2.6.4.5 with minor amendments.

- Land Use Authorizations
 - Leases – The REMB would actively pursue additional commercial and industrial leases in areas where market conditions warrant this type of development. Leases would also be considered for high value residential properties with scenic and recreational amenities. New cabin site leases would generally be low-priority. In urban areas, the REMB would consider single family, multi-family, pre-

fabricated, and mobile home residential leases. The RFP process would be used to help establish desired outcome objectives.

- Licenses – The REMB would emphasize long-term licenses with a high rate of return over short-term leases. “Walk in” requests for individual short-term leases would generally be discouraged.
- Easements – The REMB would continue to respond to requests for easements on state lands for both private and public purposes per Land Board policies. However, those proposals that provide greater income to the Trust would be favored. Conservation easements would be difficult to convey under current legal constraints.
- Land Transactions
 - Land Banking – The REMB would use Land Banking, if legally authorized, to acquire existing properties with high revenue streams and to provide increased public access to Trust Lands. The Bureau would also use Land Banking (with proper legislative authorization) to position itself in areas of high growth, including purchasing existing developed uses in areas where Trust Lands are not well positioned to capture revenue opportunities. Land banking would apply whenever practical to the sale of lots created through joint venture partnerships. In the near term, higher value lands located in the western part of the state may be sold (with or without entitlements) to help achieve strategic objectives to increase the agricultural land base of trust lands (as compared to grazing lands).
 - Land Exchanges – The REMB would consider those land exchanges that would result in the acquisition of both undeveloped land and land with improvements that provide an existing income stream. Land exchanges would continue to occur outside the initiative of the REMB to achieve other objectives of the TLMD.
 - Land Sales – Land sales would be considered in conjunction with joint ventures and partnerships between the DNRC and private and/or public entities. Under this approach, the joint venture/partnerships would make physical improvements to the land and seek those land use designations that would improve overall marketability. Once the maximum entitlements are achieved, the land would be sold and the partners would share in the profits associated with the improvements. Sale of rural land (without joint venture) would be accomplished with some certainty as to future desired outcomes through the establishment of land

entitlements, whenever possible. This is not to say that land sales may not occur outside the concept of joint ventures or without maximum entitlements, especially in such situations as land banking or where improved land entitlements may not be in the interests of local regulatory jurisdictions.

The Department would continue the existing residential leasing program.

- Marketing
 - Advertising – The REMB would engage in a very active marketing component. In addition to print and electronic advertising strategies, the REMB would engage in a wide-reaching aggressive campaign that might include an interactive web page to respond to inquiries and the preparation of highly produced development packets and brochures with information on available lands and leases. The REMB might also consider working with a professional marketing firm in advertising its properties through brochures, video presentations and various computer and Internet strategies.
 - Real Estate Affiliations – The REMB would work closely with local, state and national real estate and development organizations. Affiliations with these professional groups would be key in promoting state Trust Land properties. Bureau staff would be active members of local organizations and attend regional and national real estate conferences and meetings in order to promote its programs and offerings.
 - RFP Process – The REMB would engage in an aggressive effort to market its lands through the RFP Process. Prior to issuance of an RFP, however, work would be done to improve land entitlements through a number of mechanisms including, but not limited to:
 - improving access;
 - neighborhood planning;
 - amendment to growth policies;
 - seeking appropriate zoning designations;
 - arranging for and installing necessary infrastructure;
 - adding amenities and enhancements; or
 - identifying potential public and private partners.

The RFP process would include not only traditional legal notices but targeted solicitations as well.

2.6.6.6 Project Management Roles

The approach to project management is similar to that described in Section 2.6.4.6. This section emphasizes the proactive role by the REMB to identify and implement project opportunities. Key emphasis under Alternative D would be to achieve desired land use outcomes by using such tools as “joint ventures” and RFPs that identify outcome objectives for specific properties as project opportunities are identified through the funnel filter process. The joint venture process would allow DNRC to stay involved as an equity partner in a development project, allowing greater control in achieving [project] outcome objectives.

- The Real Estate Management Bureau – The REMB would actively manage and promote residential, conservation, industrial, and commercial uses on Trust Lands. The REMB would prioritize project opportunities as described by the funnel and project selection processes. DNRC would seek to improve land entitlements and stay connected to project opportunities to the extent possible through the RFP or joint venture processes.
- The Developer – The REMB would work closely with potential developers to establish project feasibility in the market place. Partnership agreements with private entities would be pursued, as appropriate, in preparing market studies, developing infrastructure and in preparing sites for construction. The Bureau would also focus on the acquisition of existing buildings. The REMB could then enter into an agreement with a project manager to expand, rehabilitate, and/or manage these properties.
- City/County Local Governments – DNRC staff would work closely with local jurisdictions in land planning and infrastructure development. Whenever possible, the REMB would seek the most advantageous policy decisions in light of revenue objectives. REMB would work cooperatively with local governments to provide infrastructure and services to Trust properties as resources and opportunities permit. Other avenues of cooperation may include coordinating land use objectives related to affordable housing and redevelopment.

2.6.6.7 Administration

The administrative approach to Alternative D would be as generally described for Alternative B in Section 2.6.2.7. Critical to implementation is a need to improve staff expertise in the areas of real estate management, land use planning, real estate appraisal, marketing, engineering, and finance. In addition to the Department staff appraiser, the REMB has added staff with expertise in land use planning to most of the regional offices. However, to achieve the proactive philosophy of this

Alternative, three additional staff with expertise in the latter three disciplines together with the base knowledge and training of the existing staff would be appropriate. Additional funding of approximately \$500,000 per year would also be necessary to achieve the higher rates of return associated with improved land entitlements, such as capital investments in infrastructure. Failure to achieve full staffing and funding objectives could limit DNRC's ability to seek land entitlements that require significant funding and or react to the market and develop properties in growing communities. As a consequence, desired land use outcome objectives would be less certain and developed acres would be less than anticipated, as would rates of return and increased revenues.

- \$ Staffing and Staffing Expertise – The level at which Alternative D could be implemented to achieve the predicted rates of return, revenues, and acreages would depend on the level of staffing and associated budget. Current staff levels may limit the number of projects, the degree of participation by DNRC in joint venture opportunities, and the type and complexity of entitlements brought to projects. Specific expertise in planning, real estate appraisal, marketing, engineering, and finance would be particularly important. Three additional employees over the existing staffing may be necessary. The Bureau would emphasize shared expertise and establish teams of project planning and development personnel that could be assigned based on state-wide priorities. Whenever possible, staffing needs would be achieved through reassignment of vacant FTEs (Full Time Equivalent Employees).
- \$ Funding – Alternative D would require the allocation of additional financial resources to the REMB. Additional funding may be necessary for increased staffing and project support, including costs to improve land entitlements. Additional funding sources may be sought to achieve program objectives through a development improvement fund (revolving) using initial seed money to start the fund plus a share of lease, license, easement, and sale revenue on an annual basis to perpetuate the fund. The study by Jackson (Appendix D) clearly demonstrated that as land entitlements/improvements were made to trust land, the rates of return to the trusts increased. Up to \$500,000 per year would be sought to improve land entitlements.
- \$ Statutory Authority – Legislation would be necessary to authorize a special development revolving fund and any other special funding requests. A specific grant of authority in the law pertaining to selling development rights would also be advantageous to achieve conservation objectives.

2.6.6.8 Financial Considerations

Revenue to the trusts and other financial relationships associated with development of trust lands under Alternative D is generally applicable to that described in Section 2.6.2.8 and 2.9.1.2, with some exceptions.

- **Revenue to Trust** – Revenue sources would be from commercial leases, Industrial leases, conservation leases, licenses, and easements, and land sales. As suggested under “Philosophy”, Alternative D would attempt to achieve revenue from rural land sales under a different approach by attempting to improve land entitlements whenever feasible. The study by Jackson (Appendix D) found that the rates of return to the trusts would increase with land improvements/entitlements. The REMB would identify specific properties for project consideration as described in the funnel process (Figure 2.4) and project selection process (Figure 2.5). The funnel process would require the DNRC to consider outcome objectives for specific properties and, in most situations, this would include some level of a community planning process to establish land use entitlements (use, density, performance standards, infrastructure extension, etc). Lands identified for project opportunities would, in most situations, be sold or developed with identified land use objectives. Other strategic objectives of the DNRC, such as land portfolio diversification through land banking, would likely require the disposition of raw lands. If funding and staffing objectives are not achieved, then land disposition may reflect more of the expectations of Alternative A, where rural lands may be sold with few entitlements.
- **Asset Management** – Implementation of Alternative D would likely occur on lands actively managed for agricultural, grazing, or forestry. Management would emphasize development of those properties and uses that would provide the greatest return relative to any investment required. The key emphasis of asset management would be “proactive”; meaning that all project opportunities would be identified through the funnel filter approach and be selected through the project selection process.

2.6.6.9 Environmental Review and Public Comment

- **Local Land Use Regulations** – Under Alternative D, the REMB would have an ongoing, active role in local land use planning activities. Participation in local planning processes would focus on improving entitlements to lands that may have some suitability for development. DNRC staff would actively participate in local government processes to develop, amend or apply growth plans, zoning designations, subdivision, annexation and development agreements or other policies or regulations where there is the possibility of increasing revenue for the trust beneficiaries. Local land use policies and regulatory processes would be followed.

- MEPA – An appropriate level MEPA analysis would be completed prior to final approval of a DNRC project. To the extent feasible, the application and approval processes associated with local government approval of DNRC projects would satisfy many of the review elements of MEPA. The goal of the environmental analysis is to recognize the value of the local regulatory review process in identifying community impacts and associated mitigation strategies.

2.7 DESCRIPTION OF REASONABLY FORESEEABLE FUTURE ACTIONS NOT PART OF THE PROPOSED PROGRAMMATIC PLAN BUT RELATED TO CUMULATIVE EFFECTS

The scope of a cumulative impacts analysis is guided by 75-1-208 (11), MCA. This plan would have no direct or indirect influence on growth and development of other agency lands. Cumulative effects on other revenue-generating bureaus of the Trust Land Management Division are expected to be complementary to the overall revenue objectives for the trusts. To the extent practical, development on trust lands would be in response to market conditions that reflect demand and locational considerations. Accordingly, trust lands would be sharing in the expected growth of a community and impacts to the community would be considered through local regulatory review processes, as applicable, and MEPA. The total land area dedicated to new residential, commercial, and industrial land uses through the year 2025 is expected to be less than 1% of the total Trust Land area.

2.7.1 Agricultural Land Leasing

Revenue from agricultural leasing on Trust Lands averages around \$8 million dollars per year. Average revenue per acre for agricultural uses is approximately \$14.00. Over a period of decades, the acreage available for agricultural leasing may increase through conservation agreements and asset shifting between programs. The REMB may have an indirect influence on the amount of land available for agricultural practices through actions related to land banking and land exchanges. In some situations, residential valued lands may be exchanged or land banked to increase agricultural acreages.

2.7.2 Grazing Land Leasing

Revenue from grazing activities on Trust Lands fluctuates between \$4.5 and \$6 million dollars per year. Average revenue per acre for grazing is approximately \$1.25. The Bureau may have an indirect influence on the amount of land available for grazing through actions related to land banking and land exchanges. In some situations, grazing lands may be exchanged or land banked to increase acreage for higher income property.

2.7.3 Forest Product Sales

Revenues from timber sales on Trust Lands fluctuate significantly between years, ranging \$6 to \$10 million per year. Average revenue per acre of total forest classified lands is approximately \$7.00. Over a period of decades, the acreage available for timber sales may increase through asset shifting between programs. Bureau activities may have an indirect influence on the amount of land available for timber management through actions related to land banking and land exchanges. In some situations, grazing lands may be exchanged or land banked to increase acreage for forested lands. In other situations, forested lands may have a higher and better use for residential purposes so land available for timber sales may slightly decrease. As suggested in each of the six alternatives, the option to purchase residential development rights on forested lands would secure long-term opportunities for forest management.

2.7.4 Mineral, Oil, Gas Leasing

No significant cumulative impacts to the Minerals Management Bureau are expected with implementation of the real estate management program. The potential impacts to the subsurface mineral rights are evaluated in all situations involving decisions that might affect the long-term disposition of Trust Lands through sale, exchange, or easement. Subsurface rights can be protected, when desirable, by partial conveyance of only the surface rights. Lands considered to be valuable for mineral deposits cannot be sold (77-2-303, MCA).

2.7.5 Recreation

Legally accessible Trust Lands are open to recreational use. This use has been authorized under a general recreational use license since 1990. Since the inception of the program, the revenues have increased from less than \$50,000 annually to \$405,700 in fiscal year 1998 and \$558,000 in fiscal year 2003.

In the 2003 legislative session, Senate Bill 130 passed authorizing compensation for hunting, fishing and trapping through an agreement with the Department of Fish Wildlife and Parks whereby FW&P compensates the trust for each conservation license sold, beginning March 2004. Revenues are expected to increase to over \$900,000 as a result of this agreement. All other recreational use activities will continue to be authorized under the general recreational use license.

Over the next several decades, some land asset shifting would occur as a result of land sales, land exchanges, and land banking. Through this process, it is expected that the acreages for classified "forest", "other", and "agriculture" would increase with a decrease in classified grazing lands. The public may notice that access to some well-known "neighborhood" Trust Lands may be lost with change of ownership but on an overall basis, total acreage of Trust Lands available for casual recreation is either not expected to decrease or decrease only slightly.

2.8 SUMMARY COMPARISON OF THE EFFECTS OF ALL ALTERNATIVES ON THE PROJECT OBJECTIVES AND ON THE RELEVANT ENVIRONMENTAL FACTORS

The alternatives consider growth options for “commercial”, “conservation”, “industrial”, and “residential” on school Trust Lands. In each alternative, an assumption is made that Trust Lands would share (not create) expected future growth. It is assumed that the expected growth would occur regardless; and that certain Trust Lands may actually be suitable and capable of capturing some of that expected growth. In certain situations, it could be argued that development of some Trust Lands may be more environmentally appropriate than development of non-Trust Lands. This would be the situation if development activities were forced to “leap” beyond Trust Lands to meet local development demands or if Trust Lands were better positioned for development due to favorable topography, location, and access to infrastructure. The only clear distinction of impacts relates to the management objectives of the TLMD and revenue parameters. For example, it can be assumed that increased development (including conservation) on Trust Lands would generate more revenue to the trust beneficiaries and more taxes (property and personal) to local and state agencies. However, development on Trust Lands does not necessarily create new jobs since the development would occur anyway. Under each of the alternatives, new development potential on Trust Lands never exceeds 1% of the total Trust Land acreage through the year 2025. The percentage share of development is even less significant when considered in the context of the entire acreage (all landowners). Table 2-18 attempts to summarize the management and environmental distinctions between alternatives without consideration of the broader context of land use development on non-Trust Lands.

Table 2-18. Summary Comparison of Effects						
	Alternatives					
	A	B	B-1	C	C-1	D
Growth By Land Use Type						
Residential	+	++	+	+++	++	++
Commercial	+	++	++	+++	+++	++
Industrial	O	+	+	+	+	+
Conservation	+	+	++	+	+++	++
Growth By Location						
Urban	O	+	+	++	++	++
Suburban	O	+	+	++	++	+
Rural	O	+	O	++	+	+
Project Selection by DNRC						
Reactive	O	+	+	+	+	+
Proactive	O	+	+	++	++	++
Real Estate Tools						
Leases	O	+	+	++	++	++

Table 2-18. Summary Comparison of Effects						
	Alternatives					
	A	B	B-1	C	C-1	D
Licenses	O	+	+	+	+	+
Easements	O	+	+	+	+	+
Land Banking	O	+	+	++	++	+
Land Exchanges	O	+	+	++	++	+
Land Sales	O	+	+	+	+	+
Joint Ventures	O	+	+	++	++	++
Marketing	O	+	+	++	++	+
Property Purchases	O	+	+	++	++	+
Project Management Roles						
DNRC	O	+	+	++	++	++
Developer	O	+	+	+	+	+
Local Government	O	+	+	+	+	+
Partnerships	O	+	+	++	++	++
Administrative Support						
Staffing	O	+	+	++	++	+
Funding	O	+	+	++	++	+
Statutory Authorizations	O	+	+	+	+	+
Financial						
Revenue to Trust	+	++	+	+++	++	++
Tax Revenue	+	++	+	+++	++	++
PILT	O	O	O	O	O	O
Job Creation	O	+	O	++	+	+
Asset Management	O	+	+	++	++	+
Environmental Review						
Local Land Use Regulations	+	+	+	+	+	+
MEPA	+	+	+	+	+	+
Environmental Affects						
Geology & Soil	O	+	+	+	+	+
Water Resources	O	O	O	O	O	O
Fisheries	O	O	O	O	O	O
Wildlife	O	+	+	+	+	+
Vegetation	O	+	+	+	+	+
Air Quality	O	+	+	+	+	+
Noise	O	+	+	+	+	+
Aesthetics	O	O	O	O	O	O
Cultural	O	O	O	O	O	O
Community Infrastructure	O	O	O	O	O	O
Taxes	O	+	+	++	++	+

Table 2-18. Summary Comparison of Effects

	Alternatives					
	A	B	B-1	C	C-1	D
Note: O = current condition; + = elevated and relative impact from current condition						

2.9 PREDICTED ATTAINMENT OF PROJECT OBJECTIVES BY ALTERNATIVE

2.9.1 Objective 1 – Generate increased revenue for Trust beneficiaries greater than current levels

Revenue generation associated with each alternative is expressed relative to the status quo (Alternative A). Under all six alternatives, however revenue to the Trust is expected to grow.

2.9.1.1 Alternative A: Current Program

Under Alternative A, the Bureau would continue to manage its lands at the current level of activity, or at a rate that is less than market share. The study by Jackson (2004) included in Appendix D suggests that Alternative A would generate an annual rate of return of approximately 2.13%.

2.9.1.2 Alternative B: Diversified Portfolio

Under Alternative B, the Real Estate Management Bureau would develop trust lands in direct proportion to the percentage that state lands have of the entire developable land base within each land office region. The study by Jackson (2004) included in Appendix D suggests that Alternative B would generate an annual rate of return of approximately 4.66-5.13%, with the higher rate of return resulting from improved land entitlements achieved through the expenditure of up to \$500,000 per year for those purposes.

2.9.1.3 Alternative B-1: Diversified Portfolio – Conservation Priority

Under Alternative B-1, the Real Estate Management Bureau would develop commercial and industrial uses on trust lands in direct proportion to the regional market. However, residential development on trust lands would be comparable to Alternative A and the replacement income would be less from the substituted conservation “sales”. The expected rate of return on equity should be approximately 4.46%.

2.9.1.4 Alternative C: Focused Portfolio

Under Alternative C, the Bureau would develop trust lands at a rate proportional higher than other lands in the region. The study by Jackson (2004) included in Appendix D suggests that Alternative C would generate an annual rate of return of approximately 5.48-6.35%, with the higher rate of return resulting from improved land entitlements achieved through the expenditure of up to \$1 million per year for those purposes

2.9.1.5 Alternative C-1: Focused Portfolio – Conservation Priority

Under Alternative C-1, the Real Estate Management Bureau would develop commercial and industrial uses on trust lands at a rate proportionally higher than other lands in the area. However, residential development on trust lands would be comparable to Alternative B and the replacement income would be less from the substituted conservation “sales”. The expected rate of return on equity should be approximately 5.14%.

2.9.1.6 Alternative D: Focused Entitlements

The focus of Alternative D is to increase revenue to the trusts by improving entitlements to lands identified for project opportunities. The entitlements would provide more certainty to the project approval process and improve lease or sale values as compared to lands with no or few entitlements. Income to the trusts and rates of return would depend on the success of implementing Alternative D. With adequate staffing and funding, rates of return could range from 5 to 6%.

2.9.2 Objective 2 – Comply with the Montana Environmental Policy Act (MEPA) requirement for developing a programmatic plan, DNRC’s administrative procedures regarding MEPA (ARM 36.2 537) and the Montana Antiquities Act (MCA 22-3-424), in their most current form.

Environmental impacts associated with residential, commercial and industrial development in communities are cumulative. Developments on school Trust Lands would contribute to those cumulative impacts. However, the purpose of the funnel filter process is, in part, to identify a subset of transitional lands that are suitably located for development, adhere to local regulatory processes, and consider other regulatory and environmental issues. The REMB would seek to minimize any adverse and cumulative impacts through the identified internal and external review processes. In addition, unlike developments on private lands, real estate activities on trust lands are subject to review under MEPA and the Montana Antiquities Act. The REMB would comply with MEPA and Montana Antiquities Act responsibilities under all six alternatives. However, the manner in which requirements are addressed does vary by alternative, reflecting the associated management approach. Refer to relevant discussions in Chapter 5.

2.9.2.1 Alternative A: Current Program

Under Alternative A, the REMB would continue to comply with MEPA requirements using the Act as the principal framework for environmental review. In addition, projects would be reviewed with respect to their impact on historic and cultural resources. The lessee would be responsible for compliance with all applicable regulations. In addition, the Bureau would work to coordinate public involvement requirements under MEPA with local public processes. However, the MEPA analysis, in large measure, would be undertaken at a Bureau rather than community level.

2.9.2.2 Alternatives B: Diversified Portfolio and B-1: Diversified Portfolio – Conservation Priority

Under Alternatives B and B-1 the REMB would meet the Department's responsibilities under MEPA through its adherence to local land use regulation wherever possible. Any requirements not met through local land use policy and regulatory processes would be fulfilled directly through MEPA compliance. For example, site-specific socio-economic studies and cultural impact assessments required under the Montana Antiquities Act, would be undertaken for every qualifying project, regardless of whether the assessments are required locally.

2.9.2.3 Alternatives C: Focused Portfolio and C-1: Focused Portfolio – Conservation Priority

Under Alternatives C and C-1 the Bureau would evaluate the Department's compliance responsibilities with respect to both MEPA (and the Antiquities Act) and local land use policy and regulation. Under this alternative, the Bureau would utilize the local regulatory process to improve land entitlements and would "tier" to those processes to satisfy many of the review elements of MEPA.

2.9.2.4 Alternative D: Focused Entitlements

The emphasis of Alternative D is to work closely with the community planning process to improve entitlements and to identify preferred outcomes to properties identified for project opportunities. This would involve considerable public involvement and participation in the project review and land entitlement processes. Environmental issues would be identified through those processes and through the internal processes leading to project selection. The complexity of environmental review through MEPA would consider the type and complexity of environmental review accomplished through the local review processes.

2.9.3 Objective 3 – Provide a more effective and efficient decision-making framework for real estate management that includes a strategic vision and philosophy for future management.

2.9.3.1 Alternative A: Current Program

Alternative A, the status quo, would continue a program that responds to opportunities as time, funding, and expertise permit. The ability to respond to opportunities in a timely manner would be severely limited. Further, given the limits of interaction with local governments due to limited staff and level of project development under this alternative, project outcomes may be less certain than under the action alternatives. Also, under Alternative A, it would be difficult to predict a revenue stream over time. The ability to generate revenue for the trust would be dependent on available resources and often would be driven by outside interest rather than Departmental priorities.

2.9.3.2 Alternatives B: Diversified Portfolio and B-1: Diversified Portfolio – Conservation Priority

Under Alternatives B and B-1, the REMB would be directly involved with community planning efforts and therefore able to coordinate its project development and review processes with those of local planning and development authorities. This would help to streamline project approval processes through the establishments of well-defined land entitlements. This alternative would also enable the Bureau to be more active in defining and implementing priority real estate projects over a period of time, which in turn would allow for allocations of resources as needed to meet revenue objectives.

2.9.3.3 Alternatives C: Focused Portfolio and C-1: Focused Portfolio – Conservation Priority

Alternatives C and C-1 offer an efficient framework for real estate management through improved staffing and funding of entitlements. Coordination with local land use processes would be a priority task. Project development would be expedited through collaborations and partnerships with other private and public interests.

2.9.3.4 Alternative D: Focused Entitlements

Alternative D provides a clear vision to the decision-making framework for the REMB. The essence of all alternatives is reliance on a funnel system that filters out lands that may not be suitable for development while providing a finer screening system to identify lands that might be suitable for development. Project possibilities are then filtered through the REIT process to create project lists. All projects selected in this manner would then be subject to local regulatory review and approval as applicable. Alternative D provides an added emphasis on securing land entitlements whenever practical and identifying desired project outcomes. Implementation of desired outcomes would be achieved through the RFP process or through joint ventures with developers whenever practical.

2.9.4 Objective 4 – Simplify the project level evaluation process.

The establishment of the funnel filter approach in identifying lands suitable for development would simplify the project evaluation process, to some extent, under all the action alternatives. However, the funnel approach still emphasizes compliance with all applicable local, state, and federal laws, including adherence to local land use regulations. The funnel and project selection processes described earlier in this chapter provide a more structured and predictable methodology for guiding decisions of the REMB.

2.9.4.1 Alternative A: Current Program

Under the current program, the REMB would strive to improve its evaluation process, but would continue to use a course filter analysis in the near term. Ultimately, a funnel filter analysis would enable the Bureau to identify, at a gross level, the lands which would be suitable for development. However, since the management of real estate would be largely driven by inquiries and proposals from outside the Department, it is unlikely that more site specific analyses could be undertaken in advance of project proposals. Projects would be evaluated on a more “ad hoc” basis rather than being derived from a more formal decision-making process.

2.9.4.2 Alternatives B: Diversified Portfolio and B-1: Diversified Portfolio – Conservation Priority

Alternatives B and B-1 would enable the REMB to undertake a more systematic approach to determining those lands that would be suitable for development. It would allow the Bureau to focus on those lands that are identified as “transitional” and determine their potential for residential, commercial and industrial development. Under Alternatives B and B-1, the Department would work closely with local government regulatory processes to improve land entitlements. Further, a number of local and state compliance related activities could be conducted simultaneously to save time and resources.

2.9.4.3 Alternatives C: Focused Portfolio and C-1: Focused Portfolio – Conservation Priority

Under Alternatives C and C-1 the REMB would actively make use of those strategies that simplified project level review in order to take advantage of timely opportunities in the market place. In addition to striving for simultaneous and expedited review procedures (MEPA and local regulatory review), the Bureau would be more proactive in seeking favorable land use entitlements for trust lands.

2.9.4.4 Alternative D: Focused Entitlements

The project evaluation process under Alternative D is similar amongst all alternatives. The funnel filter process leads to a project identification process.

Combined, the two processes narrow project opportunities to a small subset of trust lands based on evaluation tools that consider such factors as environmental effects, market, costs, revenue, staffing needs, and others. It is assumed that working with local planning offices to improve land entitlements will be beneficial to the project review process and increase revenue to the trusts.

2.9.5 Objective 5 – Protect the long-term viability of Trust Land for uses other than agriculture, grazing and timber.

As trust managers, the Trust Land Management Division of DNRC is first and foremost an asset management organization. Whereas the division has historically managed for natural resource extraction, the data supports broadening those land-use activities to include uses that generate greater revenue per acre. Invariably, that means rearranging the asset portfolio from one that is overly reliant on grazing and acquiring or developing lands that have the potential for commercial, residential, and conservation opportunities. The vast majority of Trust Lands will continue to be managed for historical uses well into the future and only those lands that are positioned well for real estate opportunities will be reclassified to “other” and only as market conditions permit.

2.9.5.1 Alternative A – Current Program

This alternative does not anticipate full participation in market forces related to future growth and development of residential, commercial, and industrial uses. However, internal processes are in-place (project selection process) to ensure proper identification and selection of properties suitable for these purposes. The majority of Trust Lands would remain suitable for natural resource management and some portion thereof would be available in the future for additional land use opportunities. No acreage restrictions are proposed for lands with conservation values.

2.9.5.2 Alternative B: Diversified Portfolio

This alternative anticipates that Trust Lands would receive a pro-rata share of future growth within a particular region of the state. The proportion of expected growth would remain insignificant (<1%) on Trust Lands through the year 2025. Internal and external project review processes would ensure that only those lands suitable for the intended purposes would be developed. The majority of Trust Lands would remain suitable for natural resource management and some portion thereof would be available in the future for additional land use opportunities.

2.9.5.3 Alternative B-1: Diversified Portfolio – Conservation Priority

The purchase of development rights on Trust Land for conservation purposes will typically include a provision that will enable the ongoing management of natural resources. Conservation objectives would also be achieved through project design that encourages clustering of uses to provide common area and open spaces. The

management of timber and agricultural resources are quite compatible with conservation objectives related to open space and habitat and watershed protection.

2.9.5.4 Alternative C: Focused Portfolio

This alternative anticipates that Trust Lands would receive a proportionally higher share (as compared to other land ownership categories) of future growth within a particular region of the state. The proportion of expected growth would remain insignificant (<1%) on Trust Lands through the year 2025. Internal and external project review processes would ensure that only those lands suitable for the intended purposes would be developed. The majority of Trust Lands would remain suitable for natural resource management and some portion thereof would be available in the future for additional land use opportunities.

2.9.5.5 Alternative C-1: Focused Portfolio – Conservation Priority

As noted under Alternative B-1, the purchase of residential development rights on Trust Land for conservation purposes will typically include a provision that will enable the ongoing management of natural resources. The management of timber and agricultural resources are quite compatible with conservation objectives related to open space and habitat and watershed protection. Project design that encourages clustering of uses to provide contiguous areas of open space would also be an objective of this alternative.

2.9.5.6 Alternative D: Focused Entitlements

As with the other alternatives, Alternative D prioritizes lands for development through an identified 1, 3 and 5 year project list. These lists are prepared through the consideration of a wide variety of information sources and site review. The area and unit office staff of the TLMD is integral to the identification of project opportunities. As such, the relationship of proposed projects to other TLMD objectives are considered. Essential properties to other bureau functions would, in all likelihood, not achieve project level status. Based on the scale of “other” lands as compared to agriculture, grazing, and forested lands, real estate development will have a minimal impact on those classified lands and their ability to manage the related natural resources. Another aspect of Alternative D is to prioritize lands for development with “urban” lands having the highest preference. In addition, outcome objectives for rural residential properties promote clustering and the provision of contiguous open space, allowing historical uses of the land to continue under certain circumstances. Developed uses tend to occupy smaller subsets of trust lands and achieve a higher rate of return on a per acre basis. Under this alternative, the REMB will monitor the market and the relationship of trust lands to market demand and react to capture the increased revenue opportunities associated with developed uses and do so with consideration of community values as defined through land entitlements. Opportunities to secure conservation objectives are not

limited by this alternative. Lands with defined development entitlements would be eligible for purchasers seeking conservation easements or development rights.

2.9.6 Objective 6 – Provide an opportunity for public involvement in decisions affecting residential, commercial, industrial and conservation uses.

The Bureau would, in some cases, address a substantial portion of its public involvement responsibilities normally expected under the Montana Environmental Policy Act (MEPA) through adherence to local land use policy and regulatory process under all six alternatives. Local growth policies (comprehensive plans) and their associated neighborhood plans require an extensive public involvement process under 76-1-602, MCA. The creation of a zoning district requires public involvement both in the initiation and approval processes. A local public hearing is also required for the review of a major subdivision under the Montana Subdivision Act (76-3-605, MCA). Refer to related discussions in Chapter 5.

2.9.6.1 Alternative A: Current Program

While the REMB would comply with all land use regulatory process at the local level under Alternative A, efforts to involve the public more extensively would be minimal. Involvement in local land use policy decision making would be confined to particular regulatory approvals required at the project level.

2.9.6.2 Alternatives B: Diversified Portfolio and B-1: Diversified Portfolio – Conservation Priority

Alternatives B and B-1 would provide for the most extensive opportunities for public involvement in decisions affecting the management of special uses, through its ongoing involvement with local government planning activities and its adherence to local land use regulatory processes well as MEPA.

2.9.6.3 Alternative C: Focused Portfolio and C-1: Focused Portfolio – Conservation Priority

Under Alternatives C and C-1, public involvement would be similar to Alternatives B and B-1.

2.9.6.4 Alternative D: Focused Entitlements

Public involvement would be achieved through active roles by DNRC in local land use processes involving the establishment of land entitlements and through local project review processes.

2.9.7 Objective 7 – Identify ways to work more closely with local government processes and policies

2.9.7.1 Alternative A: Current Program

Under Alternative A, the REMB would generally not be an active participant in the local government process. Any relationships to these processes would be largely project driven. Little effort would be spent in participating in comprehensive community planning processes or in the preparation of neighborhood plans. The Bureau would work to remain informed of local policy development and its potential impact on state lands. However, they would not, for the most part, actively engage in the formulation of policies and regulations related to land use.

2.9.7.2 Alternatives B: Diversified Portfolio and B-1: Diversified Portfolio – Conservation Priority

Under these alternatives, the REMB would work with local governing bodies to identify ways to promote real estate development within the framework of local policies and regulatory processes. From time to time, Bureau staff would participate in discussions at the local level regarding policy formulation and work to coordinate its planning processes with those of the local governments, particularly when such activities would enhance revenue opportunities. The Bureau would work with local officials in order to make sure the necessary entitlements were in place in order to realize the development potential of those lands identified through the filtration process as described in this chapter. However, in general, the REMB would make every attempt to follow existing policies and regulatory processes.

2.9.7.3 Alternatives C: Focused Portfolio and C-1: Focused Portfolio – Conservation Priority

Under these alternatives, the REMB would have an ongoing, active role in local government activities. Participation would focus on achieving increased certainty of future land use options through improved land entitlements. REMB staff would actively participate in local government processes to develop, amend or apply growth plans, zoning designations, subdivision, annexation and development agreements or other policies or regulations where there is the possibility of increasing revenue for the trust beneficiaries.

2.9.7.4 Alternative D: Focused Entitlements

DNRC would be active participants in local community planning processes and as applicants to secure various entitlements to trust properties. Local issues and values would be reflected in many of these processes.

2.9.8 Summary Table of Predicted Attainment of Objectives

Table 2-19 depicts the degree to which each Alternative Meets Project Objectives

Table 2-19. Summary of Predicted Attainment of Objectives
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Objective	A	B	B1	C	C1	D
Objective 1	+	++	+	+++	++	++
Objective 2	+	+	+	+	+	+
Objective 3	O	+	+	+	+	++
Objective 4	O	+	+	+	+	+
Objective 5	O	+	+	+	+	+
Objective 6	O	+	+	+	+	++
Objective 7	O	+	+	++	++	++

Note: "O" indicates a status quo relationship and + indicates a strong relationship

2.10 RELATIONSHIP OF ALTERNATIVES TO ISSUES RAISED IN THE SCOPING PROCESS

Based on comments received and on prior experience with the administration of the Real Estate Management Bureau, the DNRC staff identified the following issues for evaluation in this PEIS:

1. In order to meet its fiduciary responsibilities to the beneficiaries, the DNRC must increase revenue associated with the management of commercial, industrial, residential and conservation uses on Trust Lands.
2. The REMB is managing land uses in a reactive manner without the benefit of well-defined planning process or decision making framework.
3. The REMB currently lacks a methodology for determining the suitability of land for the development of the various uses under its jurisdiction.
4. A successful real estate program will rely on a close association with local land use planning and regulatory processes.
5. The relationship of the statutory requirements under MEPA to the selection and development of projects on Trust Lands is unclear.
6. There is a need to identify opportunities for Categorical Exclusions (CE's), as provided under MEPA, consistent with the purpose for development of a programmatic plan (ARM 36.2.522(5))
7. The REMB requires guidance in addressing the growth inducing impacts of development of commercial, residential and industrial uses on Trust Land
8. The REMB requires guidance in addressing the impacts of growth with respect to transportation, air quality, noise, and other environmental concerns.
9. The REMB requires guidance in addressing open space and wildlife habitat needs while providing income for trust beneficiaries.
10. The filter process should include biological filters and clearly define relationships to local land use regulations.
11. DNRC needs to track costs of the program, not just revenue.
12. The Plan should identify lands that would be developed.
13. The REMB should be proactive in project identification and project involvement to ensure desired land uses outcomes.

14. Development on trust lands should not be subsidized by the state or by local jurisdictions.

Table 2-20 summarizes how these issues are reflected in the design of the alternatives presented in this chapter.

Table 2-20. Issues As Addressed by Alternatives								
Issue #	Alternatives						Document Reference by Section	Supportive Statement
	A	B	B-1	C	C-1	D		
1	O	++	+	+++	++	++	2.3, 2.6.2, 2.6.3, 2.6.4, 2.6.5, 2.9.1, 3.2.3, 3.2.4, 3.2.5, 4.1.3, 4.2.3, 4.2.4	All action alternatives provide for increased revenue to the beneficiaries. Increased revenue is linked to market share of residential, commercial, and industrial uses.
2	O	+	+	+	+	++	2. 1, 2.3.1, 2.6.2, 2.6.3, 2.6.4, 2.6.5, 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2	The funnel filter analysis and project selection process provide a framework for decision-making for all action alternatives. All alternatives require compliance with local land use regulatory processes.
3	O	+	+	+	+	+	2. 1, 2.3.1, 2.6.2, 2.6.3, 2.6.4, 2.6.5, 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2	The funnel filter process includes a landscape assessment of general land suitability and a demographic and market analysis to link growth objectives to regional market conditions. Other layers of the filter process are project level evaluations that help to further narrow land use options.
4	O	+	+	++	++	++	2.3.1, 2.6 (all subsections), 3.2.4, 3.2.6, 4.1, 4.1.3, 4.2.5, 4.2.6, 4.2.7, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 4.2.15, 4.3, 5.2, 5.3	An underlying premise of all alternatives, including the current program is that the REMB would work with local government land planning and regulatory processes.

Table 2-20. Issues As Addressed by Alternatives								
Issue #	Alternatives						Document Reference by Section	Supportive Statement
	A	B	B-1	C	C-1	D		
5	O	+	+	+	+	++	2.3.1, 2.6 (all subsections), 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2, 5.2, 5.3, 5.3	Under all the action alternatives, potential and proposed projects will be subject to a well-defined funnel filtration process that will address a variety of site suitability issues. Through local land use regulatory processes, the REMB will meet a substantial portion of its responsibility under MEPA. MEPA remains the final check before DNRC approves a project.
6	O	+	+	+	+	+	2.3.1, 2.6 (all subsections), 3.2.4, 3.2.6, 4.1, 4.1.3, 4.2.5, 4.2.6, 4.2.7, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 4.2.15, 4.3, 5.1	Compliance with local land use regulatory processes will, in certain cases, address most of the Department's responsibilities under MEPA and support rationale for a more simplified MEPA document. Chapter 5 provides good documentation of this relationship.
7	O	++	++	++	++	++	2.3.1, 2.6 (all subsections), 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2, 5.2, 5.3	An underlying assumption is that Trust Lands will share in expected community growth. The funnel filter analysis provides a framework for decision-making for all action alternatives regarding growth inducing impacts, such as sprawl. Local regulatory review of DNRC projects would address many of the growth inducing issues of development within the broader community.

Table 2-20. Issues As Addressed by Alternatives								
Issue #	Alternatives						Document Reference by Section	Supportive Statement
	A	B	B-1	C	C-1	D		
8	O	+	+	+	+	+	2.3.1, 2.6 (all subsections), 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2, 5.2, 5.3	The funnel filter analysis provides a framework for decision-making for all action alternatives with respect to overall environmental concerns. The funnel process includes both physical and biological filters plus site review criteria and market analysis. Review and approval of projects at the local government level would, in many instances, address these and other issues.
9	O	+	+	+	+	++	2.3.1, 2.6 (all subsections), 2.9.3, 2.9.4, 3.2.4, 3.2.6, 3.4.4, 4.1.1, 4.1.3, 4.2.2, 5.2, 5.3	The funnel filter analysis provides a framework for decision-making for all action alternatives with respect to wildlife and habitat protection. Coordination between the HCP and the SFLMP is also anticipated. None of the 6 alternatives limit opportunities for securing conservation rights on trust lands.

Table 2-20. Issues As Addressed by Alternatives								
Issue #	Alternatives						Document Reference by Section	Supportive Statement
	A	B	B-1	C	C-1	D		
10	+	+	+	+	+	+	2.3.1, 3.2.6, 4.1, 4.14, 4.1.5, 4.2.8, 5.2, 5.3	The funnel filter is a performance based filter wherein certain lands are initially identified as being generally unsuitable for development, such as steep slopes and flood plains. The Final EIS includes 2 additional biological filters that would generally preclude most developed activities within the grizzly bear recovery areas of HCP lands and portions of lands adjacent to core bull trout streams. Local land use regulations and other state and federal regulations would recognize other biological filters.
11	+	+	+	+	+	+	2.6.6, 2.9.1, 3.2.5, 4.2.3, 4.3	The selected plan would include a monitoring program that tracks revenues and costs. The rates of return analyses consider both "costs" and "revenues".
12	+	+	+	+	+	+	1.1.2, 1.1.4, 1.5.3, 2.3.1, 2.6.6, 2.9.3, 2.9.5, 3.1, 4.1.5	The plan is programmatic; not an analysis of specific parcels or specific projects. The Plan provides a systematic approach for identifying project level opportunities. The plan selection process establishes a 1, 3, and 5 year project lists.

Table 2-20. Issues As Addressed by Alternatives								
Issue #	Alternatives						Document Reference by Section	Supportive Statement
	A	B	B-1	C	C-1	D		
13	+	++	++	+++	+++	++ ++	2.6.1, 2.6.2, 2.6.6, 2.8, 2.9.4, 4.1.4, 4.2.4, 5.2	Most of the alternatives and Alternative D, in particular, attempt to offer a proactive strategy for identifying project level opportunities. Outcome objectives are generally defined by local project review and approval, through the establishment of land entitlements, and through RFP and joint venture processes.
14	O	O	O	O	O	O	2.3.1, 2.6.1, 2.6.2, 2.6.4, 2.6.6, 2.8, 2.9.2, 2.9.4, 2.9.7, 4.1.4, 4.2.4, 4.2.15, 4.2.16, 4.2.17, 5.2	The REMB intends to adhere to all local land use regulations including those that require development standards, impact fees, and such. Commercial and industrial uses would pay beneficial use taxes at the same rate as private lands.

Note: "O" indicates a status quo relationship and + indicates a stronger relationship.

2.11 IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The preferred alternative is Alternative D. The rationale and final decision will be published in a separate Record of Decision (ROD) no sooner than 15 days following the release of this Final Environmental Impact Statement. Outlined below are some of the initial reasons for identifying Alternative D as the preferred alternative.

2.11.1 Reasons for Selecting Alternative D

Alternative D reflects a management philosophy that provides a systematic and thoughtful approach to the identification, selection, and management of real estate activities on state trust lands. Alternative D provides a balance of concepts identified by the five alternatives of the DEIS while providing improved clarity on how projects would be identified (listed) and implemented. The alternative promotes a strong tie to the regulatory process of local jurisdictions and enhances project certainty, environmental protection, and revenue generation through improved land entitlements and defined outcome objectives. Alternative D provides a responsible approach to securing increased revenue to the trusts consistent with the purposes of the Enabling Act, Constitution, and Montana statutes and with other environmental and regulatory laws related to uses of land. Alternative D will provide the necessary guidance and impetus to improve the position of real estate uses in the broader trust land portfolio. Alternative D provides the necessary flexibility to react to changing market conditions while still providing checks and balances through a monitoring program that includes a mandatory reevaluation of the Plan if development caps are exceeded.



Chapter 3

The Affected Environment

Introduction and Purpose of the Chapter

Chapter 3 describes the environment that would be affected by each of the alternatives. The Chapter places the project area within the context of statewide conditions related to the physical, social, and natural environments. A description of Trust Lands includes topics related to acreage, location, purpose, management objectives, and physical and biological features.

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3.1 INTRODUCTION

The TLMD of DNRC is charged with the administration of Montana's nearly 5.2 million surface and 6.2 million mineral acres of Trust Land on behalf of various beneficiaries including public schools and universities and other state institutions. Six land office regions across the state facilitate local management of the Trust Lands. The TLMD is comprised of four bureaus that manage agriculture and grazing, forest resources, minerals, and real estate. The REMB is responsible for the development and management of residential, commercial, industrial and conservation uses and for the real estate management functions associated with land transactions on behalf of the entire Division.

The REMB currently operates and will continue to operate in the context of state and regional growth and with consideration to the natural environment. This EIS is intended to identify alternative approaches to the management of the REMB by providing programmatic guidance to decision-making for real estate activities on Trust Lands. Understanding the status quo – the current level of operations and the current environmental conditions – will help determine how the REMB would make real estate decisions into the future. This chapter describes the existing environment under the following categories:

- The Trust Land Management Division
- The Physical and Biological Environment
- The Cultural, Social and Aesthetic Environment

This information provides a baseline to compare environmental changes that might occur under each alternative. Environmental impacts associated with residential, commercial and industrial development in communities are cumulative and correspond to economic growth over time. Developments occurring on Trust Lands will represent a share of overall community growth and therefore will contribute to those cumulative impacts. These impacts will occur regardless of whether the development occurs on state lands or elsewhere in the community. Unlike developments on private lands, however, proposed uses on Trust Lands are subject to MEPA review. As a result, in some cases, the state may be required to mitigate certain impacts to a greater degree than would a private property owner.

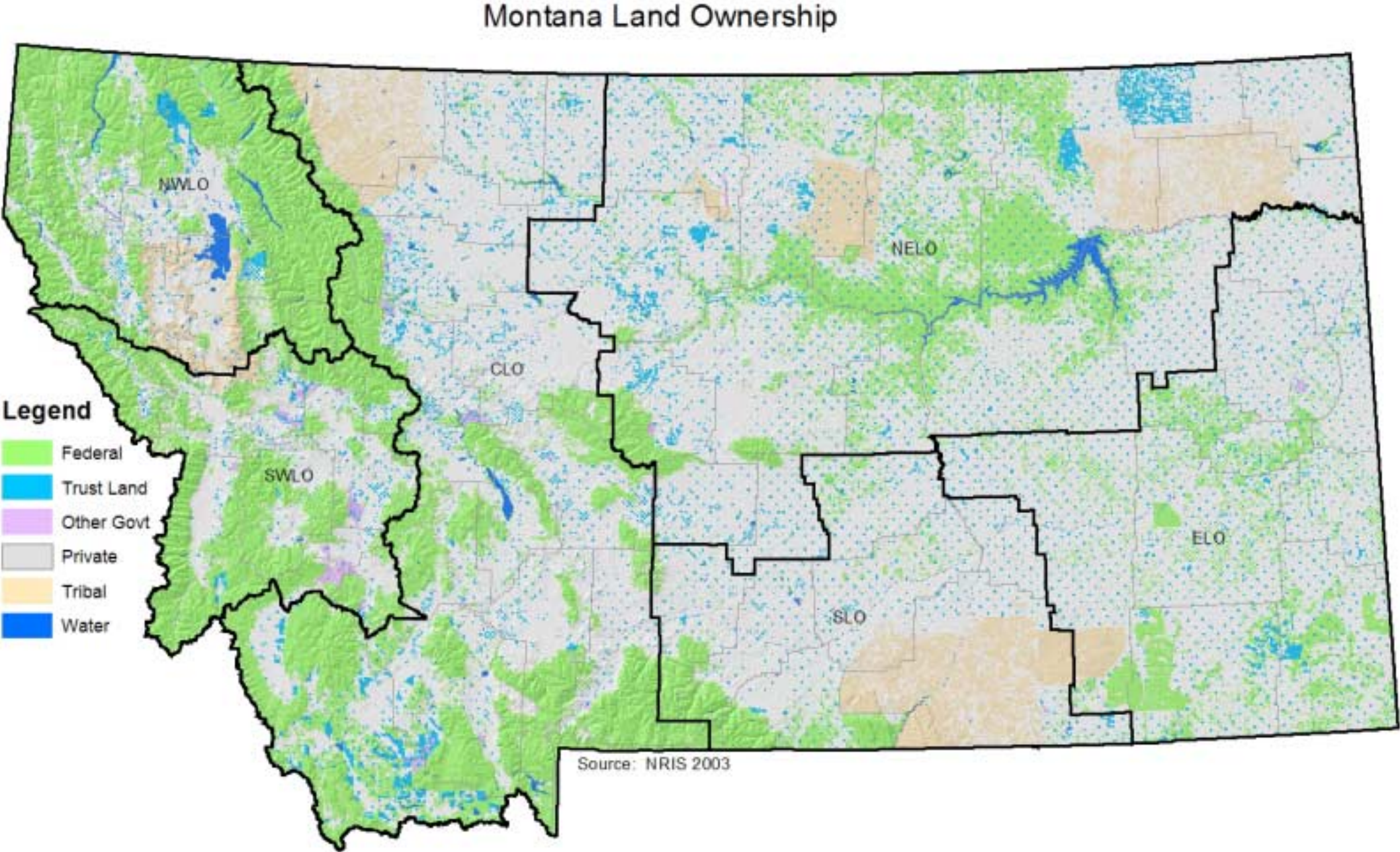
3.2 DESCRIPTION OF RELEVANT RESOURCES RELATED TO THE TRUST LAND MANAGEMENT DIVISION

3.2.1 Statewide Relationships

This section presents information regarding Trust Lands and their relationship to the state of Montana as a whole. Given that the Department intends to share in statewide economic growth (to the extent determined by the chosen alternative), it is important to understand the nature of the existing REMB program in the context of statewide demographic and economic information. A generalized ownership map of Montana (Map Exhibit 3-1) is shown on the following page. Secondly, the alternatives presented in Chapter 2 have been developed with respect to the Trust Land's share of the entire

land base. Therefore, this section includes an analysis of land ownership and land coverage characteristics statewide. Appendix G displays a series of maps depicting the relationship of existing developed uses to trust lands.

Map Exhibit 3-1. Land Ownership Map of Montana



3.2.1.1 Demographics and Economics

Montana is a large, sparsely populated state of 917,621 (2003 estimate). Of the total population, 23.8% are under age 18 and 13.5% are over age 65. There are 237,407 housing units in the state (2002 data). Montana's economy has historically depended on natural resource-linked industries. The open plains of central and eastern Montana provide land for grain farming, grazing for large herds of beef cattle, oil and gas fields and rich coal deposits. The mountainous regions of western Montana yield timber for wood products manufacturing and minerals for mining. However, in recent years the state has relied less on its natural resources, and more on its service-producing jobs (consisting of both high and low wage employment). Tourism (with predominantly low-wage jobs) is becoming more important to the state's economy. Small businesses are very important to Montana's economy. Recent Montana Department of Labor and Industry employment data shows that about 41 percent of the state's wage and salary jobs are with firms employing fewer than 20 people—and about 75 percent are with businesses employing fewer than 100 people. Table 3-1 provides summary information regarding Montana's economy.

Table 3-1. Montana State-Wide Economic Information	
Total Personal Income (2002)	\$22,650,394,000
Total Farm Income	\$255,816,000
Total Non-Farm Income	\$22,394,578,000
Per Capita Personal income (2002)	\$24,906
Median Household Income (2002)	\$33,900
Median family income in 1999 (2000)	\$40,487
Private nonfarm establishments (2001)	32,294
Private nonfarm employment (2001)	301,460
Non-employer establishments (2001)	71,298

Source: Montana Census and Economic Information Center, Bureau of Business & Economic Research

New construction in the state has been primarily concentrated in the residential market. Residential construction in the state increased by 32.8% between 2001 and 2003 while the number of commercial and industrial properties constructed declined by about 7%. The total number of new residential and commercial/industrial properties built across the state between 2001 and the present is shown in Table 3-2. During the same time period, new development of Trust lands included 40 residential lots and 3 commercial leases.

Table 3-2. Residential and Commercial Building Activity in Montana (2001-2004)		
Year	Total Residential Units built	Total Commercial/Industrial Permits Issued
2001	2,446	1,184
2002	3,618	1,119
2003	3,645	1,103
2004 to date	187 (January)	151 (March)

Source: Montana Department of Labor and Industry, U.S. Census

Existing economic and demographic information and trends for each of the six DNRC land offices has been prepared by the by Polzin (2004) and is included in Appendix B. In summary, economic conditions in the land office regions were measured using three indicators; population, per capita income, and nonfarm labor income. These variables reflect different aspects of the local economy and together provide a comprehensive overview of general conditions. The Regional Economic Information System of the U.S. Bureau of Economic Analysis provided most of the data provided. Tables 3-3 (A-G) provide a summary of the information by land office and statewide.

Table 3-3A
Selected Economic Indicators

	Northwestern Land Office					Annual Percent Change			
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	79,485	97,653	106,772	123,080	130,439	2.1	0.9	2.0	1.2
Per Capita Income (2000\$)	13,100	16,795	18,554	18,763	20,732	2.5	1.0	1.1	2.0
Percent of MT	88.9	91.1	94.1	92.0	92.1				
Nonfarm Labor Income (thous. of 2000\$)	765,602	1,068,923	1,204,892	1,412,535	1,672,155	3.4	1.2	3.3	3.4
Basic Industry Labor Income									
Agriculture	34,318	17,881	14,848	4,217	4,064	-6.3	-1.8	-12.2	-0.7
Ag. Serv. And Forestry	6,476	7,230	13,165	13,158	20,036	1.1	6.2	4.3	8.8
Mining	12,992	16,038	28,986	7,891	8,503	2.1	6.1	-11.5	1.5
Manufacturing	196,520	268,720	255,288	229,490	250,455	3.2	-0.5	-0.2	1.8
Transportation	42,955	58,056	56,202	53,383	59,689	3.1	-0.3	0.6	2.3
Nonresident Travel	16,851	40,589	34,149	40,964	61,509	9.2	-1.7	6.1	8.5
Federal Gov't	55,248	89,554	91,231	95,293	104,525	4.9	0.2	1.4	1.9

Sources: U.S. Bureau of Economic Analysis, Regional Economic Information System. Institute for Tourism and Recreation Research, The University of Montana-Missoula.

Table 3-3B
Selected Economic Indicators

	Southwestern Land Office					Annual Percent Change			
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	143,204	162,511	160,893	180,759	190,162	1.3	-0.1	1.7	1.0
Per Capita Income (2000\$)	13,529	17,655	19,152	19,960	22,109	2.7	0.8	1.4	2.1
Percent of MT	91.8	95.8	97.1	97.9	98.2				
Nonfarm Labor Income (thous. of 2000\$)	1,463,833	2,006,534	1,960,435	2,360,286	2,823,375	3.2	-0.2	3.7	3.6
Basic Industry Labor Income									
Agriculture	27,808	12,578	13,173	168	5,193	-7.6	0.5	-8.9	98.7
Ag. Serv. And Forestry	7,963	6,657	16,052	14,896	24,898	-1.8	9.2	4.5	10.8
Mining	160,476	111,560	42,163	55,805	25,372	-3.6	-9.3	-5.0	-14.6
Manufacturing	216,951	277,946	224,579	199,482	217,423	2.5	-2.1	-0.3	1.7
Transportation	87,114	106,579	94,152	111,728	116,256	2.0	-1.2	2.1	0.8
Nonresident Travel	31,873	53,419	34,829	58,188	48,244	5.3	-4.2	3.3	-3.7
Federal Gov't	110,659	150,722	141,860	147,061	173,118	3.1	-0.6	2.0	3.3

Sources: U.S.Bureau of Economic Analysis, Regional Economic Information System. Institute for Tourism and Recreation Research, The University of Montana-Missoula.

Table 3-3C
Selected Economic Indicators

	Central Land Office					Annual Percent Change			
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	214,890	238,074	250,584	275,944	285,863	1.0	0.5	1.3	0.7
Per Capita Income (2000\$)	15,468	19,049	20,424	21,200	23,351	2.1	0.7	1.3	2.0
Percent of MT	105.0	103.3	103.6	104.0	103.7				
	2,232,40								
Nonfarm Labor Income (thous. of 2000\$)	2	3,110,647	3,131,671	3,726,427	4,356,531	3.4	0.1	3.4	3.2
Basic Industry Labor Income									
Agriculture	329,474	98,344	206,293	139,077	105,790	-11.4	7.7	-6.5	-5.3
Ag. Serv. And Forestry	9,171	11,907	20,234	23,950	34,902	2.6	5.4	5.6	7.8
Mining	22,581	79,647	66,126	76,090	55,358	13.4	-1.8	-1.8	-6.2
Manufacturing	142,337	161,270	107,924	142,133	171,067	1.3	-3.9	4.7	3.8
Transportation	116,252	152,050	85,741	93,034	103,875	2.7	-5.6	1.9	2.2
Nonresident Travel	65,474	118,101	117,653	161,868	183,275	6.1	0.0	4.5	2.5
Federal Gov't	367,549	406,083	452,003	456,238	482,758	1.0	1.1	0.7	1.1

Sources: U.S.Bureau of Economic Analysis, Regional Economic Information System. Institute for Tourism and Recreation Research, The University of Montana-Missoula.

Table 3-3D
Selected Economic Indicators

	Northeastern Land Office					Annual Percent Change			
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	90,855	89,581	82,917	83,463	79,706	-0.1	-0.8	-0.4	-0.9
Per Capita Income (2000\$)	15,707	16,305	18,642	19,028	20,365	0.4	1.3	0.9	1.4
Percent of MT	106.6	88.5	94.6	93.3	90.4				
Nonfarm Labor Income (thous. of 2000\$)	635,569	845,835	735,902	743,815	780,866	2.9	-1.4	0.6	1.0
Basic Industry Labor Income									
Agriculture	395,819	72,354	199,634	151,084	138,525	-15.6	10.7	-3.6	-1.7
Ag. Serv. And Forestry	6,939	6,538	10,775	12,809	16,684	-0.6	5.1	4.5	5.4
Mining	6,329	39,595	35,221	22,007	11,993	20.1	-1.2	-10.2	-11.4
Manufacturing	30,524	23,089	23,140	15,786	14,741	-2.8	0.0	-4.4	-1.4
Transportation	56,069	90,548	67,490	53,171	54,291	4.9	-2.9	-2.2	0.4
Nonresident Travel	11,086	18,571	13,679	15,751	16,486	5.3	-3.0	1.9	0.9
Federal Gov't	64,207	58,218	64,078	65,328	71,079	-1.0	1.0	1.0	1.7

Sources: U.S.Bureau of Economic Analysis, Regional Economic Information System. Institute for Tourism and Recreation Research, The University of Montana-Missoula.

Table 3-3E
Selected Economic Indicators

	Southern Land Office					Annual Percent Change			
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	117,436	142,056	147,638	162,490	168,992	1.9	0.4	1.4	0.8
Per Capita Income (2000\$)	15,344	20,460	21,007	21,876	24,405	2.9	0.3	1.5	2.2
Percent of MT	104.1	111.0	106.5	107.3	108.4				
Nonfarm Labor Income (thous. of 2000\$)	1,230,581	2,100,952	2,019,201	2,386,938	2,805,903	5.5	-0.4	3.3	3.3
Basic Industry Labor Income									
Agriculture	163,177	40,730	62,943	33,911	30,621	-13.0	4.4	-7.0	-2.0
Ag. Serv. And Forestry	8,077	10,026	22,914	20,242	29,414	2.2	8.6	2.5	7.8
Mining	28,154	128,673	85,197	101,561	139,836	16.4	-4.0	5.1	6.6
Manufacturing	127,508	170,464	110,001	132,952	144,438	2.9	-4.3	2.8	1.7
Transportation	28,093	47,601	30,445	27,111	30,976	5.4	-4.4	0.2	2.7
Nonresident Travel	31,707	54,132	28,115	45,873	46,358	5.5	-6.3	5.1	0.2
Federal Gov't	79,951	111,726	141,324	154,898	175,075	3.4	2.4	2.2	2.5

Sources: U.S.Bureau of Economic Analysis, Regional Economic Information System. Institute for Tourism and Recreation Research, The University of Montana-Missoula.

Table 3-3F
Selected Economic Indicators

	Eastern Land Office					Annual Percent Change			
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	51,302	58,877	51,400	50,817	47,995	1.4	-1.3	-0.7	-1.1
Per Capita Income (2000\$)	14,467	19,155	18,465	18,848	20,951	2.8	-0.4	1.3	2.1
Percent of MT	98.2	103.9	93.7	92.5	93.0				
Nonfarm Labor Income (Thous. of 2000\$)	423,264	787,202	568,752	600,116	613,974	6.4	-3.2	0.8	0.5
Basic Industry Labor Income									
Agriculture	142,576	46,893	56,115	33,150	36,235	-10.5	1.8	-4.3	1.8
Ag. Serv. And Forestry	5,996	4,022	6,938	7,445	7,725	-3.9	5.6	1.1	0.7
Mining	28,931	132,609	59,569	57,552	56,167	16.4	-7.7	-0.6	-0.5
Manufacturing	17,504	17,129	16,133	19,901	18,018	-0.2	-0.6	1.1	-2.0
Transportation	42,878	68,522	41,760	45,117	49,353	4.8	-4.8	1.7	1.8
Nonresident Travel	10,708	18,009	7,915	11,896	9,829	5.3	-7.9	2.2	-3.7
Federal Gov't	26,841	41,732	43,695	44,612	40,832	4.5	0.5	-0.7	-1.8

Sources: U.S.Bureau of Economic Analysis, Regional Economic Information System. Institute for Tourism and Recreation Research, The University of Montana-Missoula.

Table 3-3G
Selected Economic Indicators

	Montana					Annual Percent Change			
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	697,172	788,752	800,204	876,553	903,157	1.2	0.1	1.2	0.6
Per Capita Income (2000\$)	14,737	18,433	19,716	20,386	22,518	2.3	0.7	1.3	2.0
Nonfarm Labor Income (thous. of 2000\$)	6,751,252	9,920,093	9,620,853	11,230,117	13,052,804	3.9	-0.3	3.1	3.1
Basic Industry Labor Income									
Agriculture	1,093,173	288,781	553,007	361,607	320,429	-12.5	6.7	-5.3	-2.4
Ag. Serv. And Forestry	44,622	46,381	90,078	92,500	133,659	0.4	6.9	4.0	7.6
Mining	259,463	508,123	317,262	320,906	297,229	7.0	-4.6	-0.7	-1.5
Manufacturing	731,346	918,617	737,066	739,745	816,142	2.3	-2.2	1.0	2.0
Transportation	373,362	523,357	375,790	383,544	414,440	3.4	-3.3	1.0	1.6
Nonresident Travel	167,699	302,822	236,341	334,539	365,700	6.1	-2.4	4.5	1.8
Federal Gov't	704,455	858,034	934,191	963,430	1,047,387	2.0	0.9	1.2	1.7

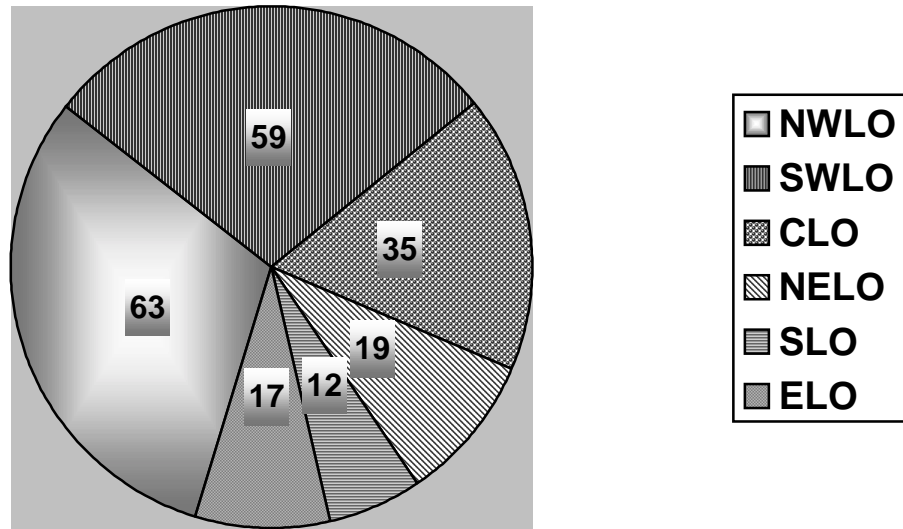
Sources: U.S.Bureau of Economic Analysis, Regional Economic Information System. Institute for Tourism and Recreation Research, The University of Montana-Missoula.

3.2.1.2 Land Ownership

The state of Montana covers a total of 147,046 square miles or 94,109,440 acres. There are 145,552 square miles of land area and 1,490 square miles of water. In 2004, Montana's Trust Land total more than 5.2 million surface and 6.2 million mineral acres. The surface land holdings represent approximately 5.5% of the entire land area in Montana. The proportion of Trust Lands to other land ownership categories varies by land office region as previously described in Chapter 2, Table 2-1.

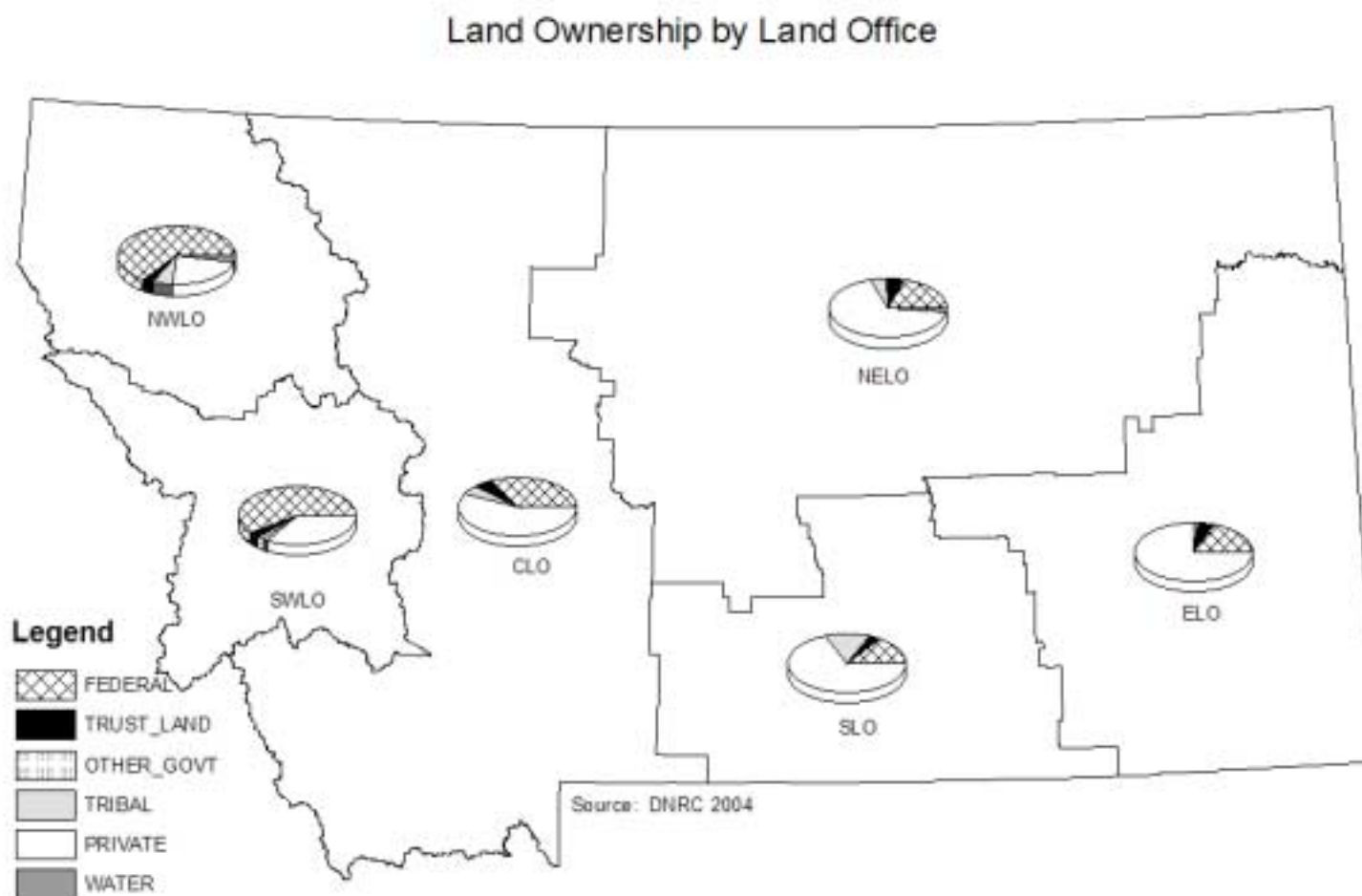
Federal lands make up a significant share of the total land area within each area land office. This is graphically presented in Figure 3-1.

Figure 3-1. Percent of Federal Ownership Within Each Land Office



The general land ownership relationships by land office are also visually represented in Map Exhibit 3-2.

Map Exhibit 3-2. Land Ownership Relationships by Land Office



3.2.2 Trust Land Acreage

3.2.2.1 Trust Land Acreage by Land Grant

The DNRC administers approximately 5.2 million surface acres of Trust Land. The total acreage figure fluctuates through the years due to land sales and exchanges. Trust Lands are widely distributed across Montana. The dominant pattern is scattered sections, many of which are the original Sections 16 and 36 designated in Montana's Enabling Act. There are also significant blocks of contiguous ownership, including seven designated State Forests in the western third of the state.

In 1785, the Continental Congress, in the Northwestern Ordinance of May 20th, provided that section 16 of every township shall be set aside for the support the public schools. A subsequent provision set aside section 36. When Montana became a state in 1889, Section 10 of the Enabling Act provided that sections 16 and 36 be granted to the state for the support of the common schools. If any land in these sections were sold or otherwise disposed of prior to statehood, states were allowed to make "in lieu" selections. In Montana, desirable farmland was homesteaded, so in lieu selections were made in the mountains in the southwestern and marginal farming land in the north central and extreme southeast corner of the state. The final selection of "in lieu" lands was made in 1983. The scattered section pattern (16 and 36) remains predominant in the eastern half of the state in the Northeastern, Eastern and Southern Land Offices.

The original common school grant in Montana was for 5,188,000 acres, with an additional 668,720 acres granted for other endowed institutions. Today, revenue on 90 % of the more than 5.2 million surface and 6.2 million mineral acres of Trust Lands is dedicated to the common schools (K-12). The remaining 10% is directed to nine other beneficiaries. Acreages by beneficiary are presented in Table 3-4.

Table 3-4. Trust Land Acreage by Land Grant			
Beneficiary	Surface Acres	Mineral Acres	Total Acres
Common Schools	4,633,474	5,601,046	10234520
University of Montana	18,556	33,754	52310
Montana State University – Morrill Grant	63,456	76,960	140416
Montana State University – Second Grant	31,424	47,077	78501
Montana Tech of the University of MT	59,440	86,267	145707
State Normal School	63,455	83,737	147192
School for the Deaf and Blind	36,461	41,171	77632
State Reform School	68,271	78,125	146396
Veterans Home	1,276	1,276	2552
Public Buildings	186,976	228,270	415246
Total Acreage	5162789	6277683	11440472

Source: 2003 DNRC Annual Report

3.2.2.2 Trust Land Acreage by Category

Trust Lands are divided into four surface classifications (77-1-401, MCA) including “forest”, “other” (residential, commercial, industrial and conservation uses), “agriculture”, and “grazing”. Table 3-5 summarizes classified land acreages by land office.

Table 3-5. Trust Land Acreage by Land Office and Classification							
Classification	NWLO	SWLO	CLO	NELO	SLO	ELO	Total
Forest	296401	150094	31028	800	0	0	478323
Other	2159	750	15000	1547	2072	200	21728
Agriculture	822	1074	123098	364443	18669	59937	568043
Grazing	13876	79957	1075216	1632708	359460	901214	4062431
TOTALS	313258	231875	1244342	1999498	380201	961351	5130525

Source: DNRC 2004

Forest classified lands dominate in the western part of the state while agricultural and grazing lands dominate in the eastern half of the state.

3.2.2.3 Percentage of Trust Land Acreage in Real Estate Uses

The total relationship of Trust Land acreage leased for commercial, industrial, and residential uses to the greater regional acreages is summarized below in Table 3-6. The

percentage of trust lands leased for developed uses ranges from a low of 0.02% in the Eastern Land Office to a high of 0.58% in the Northwestern Land Office.

Table 3-6. Percentage of Trust Land Managed by the REMB			
Land Office Region	Developed Lease Acres On Trust Lands	Percent of Total Trust Acreage*	Percent of Total Land Acreage in Region*
NWLO	1,815	0.58	0.02
SWLO	1,114	0.48	0.02
CLO	1,320	0.10	0.01
NELO	684	0.03	0.00
SLO	329	0.09	0.00
ELO	158	0.02	0.00
Total	5, 420	0.10	0.01

*Refer to Table 2-2 for total trust acres by Land Office and for total ownership acres by Land Office region

3.2.2.4 Conservation Lands Located Within LO Regions

Within each DNRC land office area, there are land areas managed for conservation purposes by both public and private entities. Information regarding conservation managed by land office is presented in Table 3-7.

Table 3-7 Conservation Lands by Land Office (Acres)							
Natural Feature	NWLO	SWLO	CLO	NELO	SLO	ELO	Total
National Parks	619,590	1,594	520,384	235	29,284	0	1,171,086
USFWS	34,829	7,144	59,544	792,655	16,004	742	910,917
Wilderness Areas	1,242,868	628,236	1,187,946	0	402,901	0	3,461,951
FWP Ownership	16,302	104,154	130,225	18,801	8,013	15,273	292,768
FWP Easements	67,167	20,305	85,285	51,539	48	64,092	288,436
Private Conservation Ownership	1,436	12,615	23,765	32,391	0	10	70,217
Wild and Scenic Rivers	6,146	0	0	12,317	0	0	18,463
Total	1,988,338	774,047	2,007,148	907,939	456,250	80,117	6,213,839

Trust Land acreage has been measured with respect to how much Trust Land is currently adjacent to, within a half a mile of, or within a mile of the conservation lands shown above. This information is presented in Table 3-8.

Table 3-8. Relationship of Trust Lands to Existing Conservation Areas			
Land Office	Acres Adjacent	Acres Within 0.5 Miles	Acres Within 1 Mile
NWLO	22,233	38,502	50,867
SWLO	12,093	26,233	38,968
CLO	72,276	130,831	176,376
NELO	68,689	101,303	134,822
SLO	3,522	12,319	19,957
ELO	10,464	20,947	25,058

3.2.3 Trust Lands Administration

3.2.3.1 Trust Land Management Division

The TMLD is one of seven Divisions within the DNRC and is responsible for the management of state Trust Lands. As trust managers, the TLMD is first and foremost and asset management organization. The mission of the TLMD is to manage the State of Montana's Trust Land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land. The TMLD manages Trust Lands under four bureaus as follows:

- **Forest Management** – The Forest Management Bureau manages timber resources on Trust Lands to provide income to the various trusts. Income is derived from the sale of forest products. The six area land offices have primary responsibility for on-the-ground management activities. With assistance from the Forest Management Bureau, the land offices conduct environmental reviews of proposed management activities, prepare contracts for those activities, and complete the necessary field work.
- **Agriculture and Grazing Management** – The Agriculture and Grazing Management Bureau is responsible for leasing and managing approximately 10,000 agreements for crop and rangeland uses on Trust Lands throughout the state. These duties are accomplished by administrative staff and specialists located in the department's Helena office, and by staff located in field offices statewide.
- **Minerals Management** – The Minerals Management Bureau is responsible for leasing, permitting, and managing oil and gas, metalliferous and non-metalliferous, coal, and sand and gravel agreements on 6.2 million acres of Trust Lands and more than 100,000 acres of other state-owned land throughout Montana.
- **Real Estate Management** – The Real Estate Management Bureau (REMB) administers all activities on lands that do not have a primary surface use for

Agricultural, Grazing, or Timber Management, including residential, commercial, industrial and/or conservation uses. REMB also manages all secondary activities on lands classified as grazing, agriculture, or timber. Secondary uses, for State purposes, are characterized as “licenses.” A license may be issued for temporary storage of gravel, construction materials, or equipment, for a group activity, for research, for outfitting and other forms of recreation, and for short-term agricultural uses such as grain bins, stockwater reservoirs, or pipelines. Fees for these uses are determined on a case-by-case basis or by using standard fees for more common licensed uses.

The organizational structure of the TLMD is presented in Figure 3-2.

Figure 3-2. Trust Land Management Division -- Organization



3.2.4 Real Estate Management Bureau (REMB)

The REMB manages residential, commercial, industrial and conservation uses on Trust Lands and secondary uses on lands classified for timber, agriculture and grazing uses.

Additionally, the REMB manages programs and processes for the issuance and acquisition of easements, the exchange of Trust Lands for private and federal lands, and the sales and purchases of Trust Lands to enable the management of state Trust Lands.

3.2.4.1 History of the Real Estate Management Bureau

The following is a brief chronology of events in the history of residential, commercial, industrial and conservation uses on Trust Land in Montana. Several non-resource based uses occurred early in this history and since 1984 the Land Board has become even more involved with these uses. Since the 1980s, the Bureau has also assumed a more active role in the development of non-resource based uses. Table 3-9 presents a summary history of the management of real estate activity on Trust Lands.

Table 3-9. History of Non-Resource Based Uses on Trust Lands – A Chronology

DATE	EVENT
1889	Montana statehood and the Enabling Act granted Sections 16 and 36 of every township for support and maintenance of the common schools, and specific acreage amounts for other grants (common schools, state normal school, school for the deaf and blind, state reform school, veterans home and public buildings). The selection of land for the other grants was usually done by blocking sections of land.
1890	State Board of Land Commissioners (Land Board) began meeting.
1890s	Land Board authorized first platting of town sites and school sites. Over the next few decades, such plats were filed for Augusta, Aldridge, Columbus, Cut Bank, Bozeman, Geraldine, Glendive, Great Falls, Havre, Helena, Kalispell, Lewistown, Nashua, Missoula, Perma, Shelby, Sheridan, Terry, Malta, Billings. Some land was sold, some was leased.
1890s – 1950s	The process of selecting lands for the common schools (in-lieu selections) began. In-lieu selections were used where there was an existing claim on the land, such as Indian reservation, homestead or mineral claim or patent, railroad grant, forest reserve, fractional township (that is, less than 640 acres), or reclamation withdrawal. This process continued for several decades as national forests were established and in-lieu selections were used to create the state forests in the 1920s and other blocks of land.
1890s – early 1900s	Other blocks of Trust Land were created when the state selected land for the other grants provided for in the enabling act.

Table 3-9. History of Non-Resource Based Uses on Trust Lands – A Chronology

DATE	EVENT
1900	Land sales occurred in response to requests from railroads and private individuals.
1910	Farm Loan Program begins. The State Board of Land Commissioners loaned Trust Land funds to private parties for purchase of private land. The state began adding to the land base because many persons defaulted on these loans during the 1930s due to drought, weather and unfavorable economic conditions. Approximately 500,000 acres were acquired through such foreclosures. Several home sites were created in eastern Montana during this time.
1910	Large blocks of Trust Land were created in western Daniels and central Valley Counties in exchange for land in Glacier National Park.
1923	The Stillwater State Forest was created through in-lieu selections for land in national forest.
1924	Early cabin sites were leased on Flathead lake.
1926	Land Board began process of in-lieu selections for Trust Land located on Fort Belknap Reservation and continued in-lieu selections for Trust Land now located in national forest.
1927	The Swan River State Forest was created through in-lieu selections for land in national forest.
1930s	Applications for a variety of new uses for Trust Land were received, including airfields, dude ranches, fur animal farms, automobile service stations, fish hatcheries, Christmas tree farms and cabin and home sites. Prior to this time, there were very few cabin and home site leases.
1940s	Cabin sites were created on western Montana lakes. Cabin site leases more than double in western Montana during the past five years and total 238.
1954	Substantial increase in applications for home and cabin sites in western Montana occurred. The Land Board approved the first rules and regulations specifically for cabin and home site leases.
1954	The Montana Department of Fish and Game leases Trust Land for winter range.

Table 3-9. History of Non-Resource Based Uses on Trust Lands – A Chronology

DATE	EVENT
1984	The Land Board initiated changes to state law in response to increasing requests for commercial leases for Trust Land, that is, to clearly allow leasing for commercial development, to allow commercial leases of up to 40 years, and to allow renewal of commercial leases. The Land Board, in response to demand from growing cities and towns, considered the need to manage Trust Land in urban areas for other than traditional resource based uses.
1987	The Land Board notes that the state is still owed about 1,000 acres from in-lieu selections.
1996	Establishment of the Special Uses Management Bureau
2000	Special Uses Management Bureau staff proposed a Programmatic Environmental Impact Statement (PEIS) for special uses on Trust Land.
2001	Crow Tribe Exchange completed. Trust Land inside the boundaries of the Crow Tribe Reservation is exchanged for land outside the reservation.
2004	The Special Uses Management Bureau becomes the Real Estate Management Bureau

Until 1996, the residential, commercial and industrial programs of the TMLD were managed under the Agriculture and Grazing and Forest Bureaus. Program activities were limited to property management and maintenance. The first recreational residential leases were issued in western Montana in the 1940s and 50s. Commercial and industrial leases were issued primarily in rural areas to support timber management. Overall, given limited staff resources, residential, commercial, and industrial uses were typically developed in response to project proponents.

However, as demand increased for residential, commercial and industrial lands in and around the state's urban areas, the TMLD experienced increased demand for non-extractive related uses on adjacent Trust Lands. In response to this increased demand and the potential to derive greater revenue from these "transitional" lands, the Department created the Special Uses Bureau (the present Real Estate Management Bureau) in 1996. Initially, staff efforts were directed to maintaining the existing program, primarily reacting to proposals initiated outside the Department. Since 1996, the Bureau has added one full time equivalent (FTE) employee at the Bureau Level and reorganized the field staff at its Northwestern, Southwestern and Central Land Offices to support both internal and external project initiation.

Whereas the Division has historically managed for natural resource extraction, the data supports

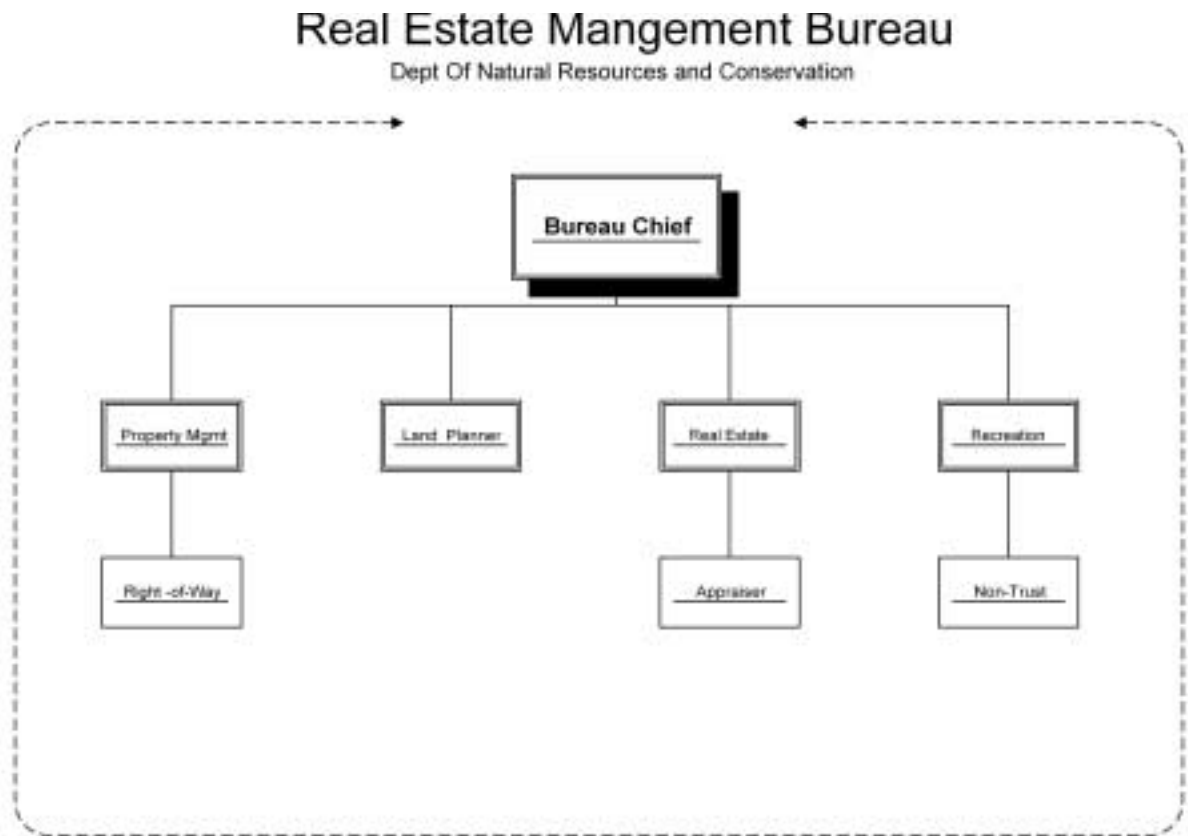
broadening those land-use activities to include uses that generate greater revenue per acre. Invariably, that means rearranging the asset portfolio from one that is overly reliant on grazing and acquiring or developing lands that have the potential for commercial, industrial, residential, and conservation leasing opportunities. This shift has already begun, albeit on a small scale. The Department has begun increasing its commercial activity and continues to commit additional staff to the REMB.

3.2.4.2 Administrative Structure

State Trust Lands are managed and administered under the direction, goals, and objectives of the Land and Unit offices through policy and procedures developed by the Bureau.

- Staffing – The Bureau Chief oversees the REMB and is responsible for four primary functions: Real Estate Services, Property Management, Rights-of-Ways, and Recreational Use. The Bureau staff includes the equivalent of 3.55 FTE's (Full Time Equivalents). The Property Manager, Appraiser, Real Estate Services Supervisor, and State-Wide Planner are Bureau personnel responsible for the management and administration of the programs under the REMB. The Bureau organizational structure is shown in Figure 3-3.

Figure 3-3. Organizational Chart for the Real Estate Management Bureau



The Bureau Staff is supported by an additional 9.55 FTE's, representing an aggregate of 28 full time employees across six land offices. Land Use Planners are being staffed in the Southern, Central, Southwestern, and Northwestern Land Offices. Land office staffing allocations are presented in Table 3-10.

Table 3-10. L.O. Staffing	
Land Office	Number of Full Time Equivalents
NWLO	2.8
SWLO	1.65
CLO	0.75
NELO	0.35
SLO	0.3
ELO	0.2
Total	9.55

- Operations – Currently, real estate project development opportunities are identified by a Commercial Development Working Group with input from unit and area offices of the DNRC. The REMB and associated field staff personal services budget is \$565,044 plus \$221,337 that supports the operations of the programs including implementation of the project list.

3.2.4.3 Real Estate Activities

The REMB can employ a number of private and public sector real estate strategies to achieve desired outcomes for projects related to residential, commercial, industrial uses. For example, real estate projects may require the formation of a joint venture between the Department and private interests in order to finance needed infrastructure. The Department could use innovative real estate planning tools such as transfers of development rights to help target development in areas that are in close proximity to existing infrastructure or in areas of high growth. Density bonuses could be sought from local planning authorities to help promote affordable housing or clustering of development. State law provides for specific land use authorizations and transactions associated with the management of Trust Lands as outlined below.

- Land Use Authorizations
 - Leases – Under 77-1-204, MCA, the state is authorized to lease Trust Lands for uses other than agriculture, grazing, timber harvest, or mineral production. Leases are generally issued for a term not to exceed 99 years. 77-1-904, MCA specifically allows for leasing of Trust Lands for commercial purposes. Leases may also be used for recreational, residential and industrial purposes. Lease rates are based on a percentage of land value. Generalized annual lease rates at the current time for various categories of use are as follows:
 - Commercial: 5%-10%
 - Conservation: 5%
 - Industrial: 5%-10%
 - Residential: 5%

The above percentages are calculated against the full market value of the property.

- Licenses – The Department issues licenses for a variety of purposes on all classes of state lands under a multiple use management concept (77-1-203, MCA). Typically licenses are issued for a shorter period than leases, 10 years or less.
- Easements – Easements may be granted on state lands under 77-2-101, MCA for schools and other community buildings, parks, cemeteries, right of ways for various purposes and private encroachments. They may be granted for conservation purposes to the Department of Fish

Wildlife and parks or to a nonprofit corporation that owns adjacent parcels that are surrounded by or adjacent to land owned by that same nonprofit. From the perspective of a conservation easement, the “cost” of an easement is based upon the full market value of the purchased “rights” associated with the property. In most situations, the “cost” of conservation easements would be approximately 50% of the appraised value of the property. The “cost” of permanent easements for schools, roads, and other such facilities would be the full market value of the property.

- Land Transactions – As provide by the Montana State Constitution (Article X, Section 11, (1) & (2)) and by 77-1-204, MCA the state can sell, purchase, lease or exchange Trust Lands when, in the State Board of Land Commissioner’s judgment, it is advantageous to do so. These activities are further subject to the following provisions:
 - Land Banking – The purpose of Land Banking as provided for under 77-2-361 and 77-2-362, MCA is to sell various parcels of state lands and use the proceeds from the sales to purchase other land, easements, or improvements for the benefit of the beneficiaries of the respective trusts and improved public access. The department may hold proceeds from the sale of state land in the state land bank fund for a period not to exceed 10 years after the effective date of each sale. If, by the end of the 10th year, the proceeds from the subject land sale have not been encumbered to purchase other lands, easements, or improvements within the state, the proceeds from that sale must be deposited in the public school fund or in the permanent fund of the respective trust as required by law, along with any earnings on the proceeds from the land sale, unless the time period is extended by the legislature.
 - Land Exchanges – State Trust Lands may be exchanged with lands owned by other public or private entities. Land exchanges are provided for in the State Constitution (Article X, Sec 11(4) and statute (77-2-203, MCA) and are evaluated with respect to the following seven base criteria. Lands may be exchanged for other properties that offer:
 - Equal or greater land value
 - Similar navigable lake or stream values
 - Equal or greater income to the trust
 - Equal or greater acreage
 - Opportunities for consolidation of state Trust Lands
 - Potential for long-term appreciation
 - Improved or equal access to state or public lands

Land exchanges are typically a multi-year process and have not been a priority land use tool in recent years. However, land exchanges can be useful to diversify Trust Land ownership. Land exchanges with the Montana Department of Transportation have resulted in new trust ownerships in the commercial areas of Missoula and Belgrade. Land exchanges can be useful for accomplishing these types of objectives, where low revenue generating properties can be exchanged to acquire properties in growth areas. The Board of Land Commissioners has approved six land exchanges in the last six years.

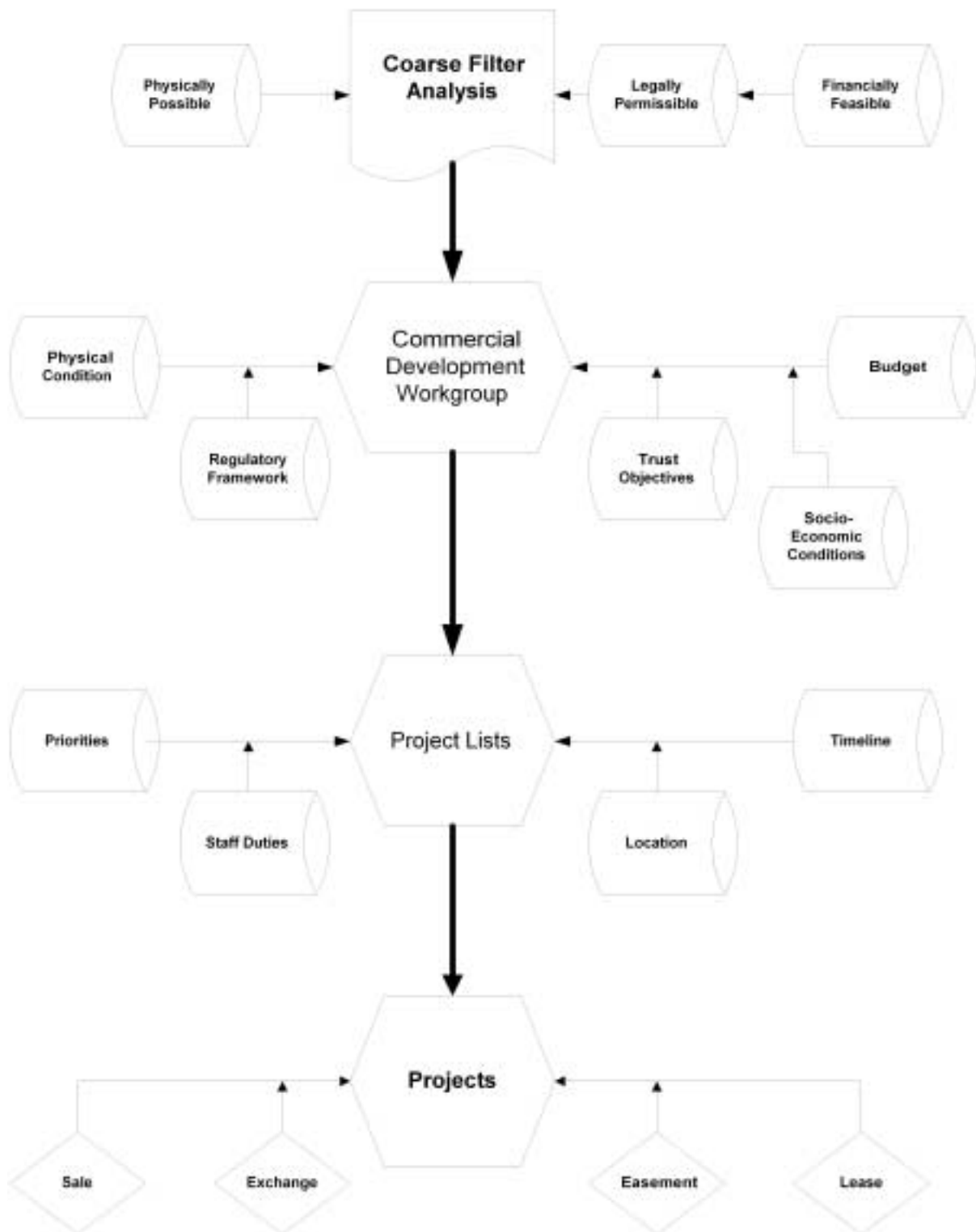
- Land Sales – Under the provisions of the Montana State Constitution (Article X, Section 11 (1&)) and state statute (77-2-323, MCA), state lands may be sold to the highest qualified bidder, but not for less than its appraised value. While land banking enables the Department to sell lands and reinvest the proceeds in other lands, the proceeds from traditional land sales must be placed in the permanent trust.

Over the past 12 years, the Board of Land Commissioners has discouraged the sale of Trust Lands. At the request of the Board, the DNRC initiated legislation that provided for banking of funds from sales for the acquisition of replacement Trust Lands that would have greater revenue potential. Land sales over the past 6 years have been primarily limited to 28 single family lots located in Billings. 77-2-318, MCA, guides the sale of leased cabin or home sites.

3.2.4.4 Coarse Filter Process

The Department created a coarse filter process (Appendix E) to evaluate and identify trust lands suitable for project development. The coarse filter analysis rates land in relation to the (1) legally permissible, (2) physically possible, and (3) financially feasible. The analysis places property in one of three Tiers. Tier I would suggest that the property has the amenities and capabilities for development. Tier I would be analogous to the properties identified as “High” in Table 2-6. Tier II indicates that the property may need some infrastructure, access, or is of a distance from an urban area that would not lend itself to development in the near future. Tier II would be analogous to the properties identified under Table 2-6 as “Medium”. Tier III indicates that the property would not be suitable for development or has several limiting factors to overcome before project consideration. Tier III would be analogous to the properties identified in Table 2-6 as “Low”. The Land and Unit Offices utilize this analysis to evaluate land for consideration by the Commercial Development Working Group. The Working Group consists of Area planners, Land Use Specialist, Bureau Chief, Property Manager, and State Wide Planner. The working group considers and evaluates projects, timing, and budgets necessary to proceed with project under a 1-3-5 year plan. A diagram of the existing project identification is shown in Figure 3-4.

Figure 3-4
Existing Project Identification Process



The coarse filter process is also used for the evaluation of land exchanges and the issuance of easements. The analysis is only applied on a project basis. An inventory using the coarse filter approach is not conducted on a landscape basis. The coarse filter process is modified under Alternatives B, B-1, C, C-1, and D to create the Funnel Filter Process (Figure 2-4).

The Commercial Working Group is analogous to the ID Team of the Project Selection Process (Figure 2-5) associated with Alternatives B, B-1, C, C-1, and D. The 1-3-5 year Project List created by the Commercial Development Workgroup is also analogous to the Real Estate Management project list of that process.

3.2.4.5 Current Trends in Development

The REMB is currently involved with a number of commercial, residential, Industrial and conservation land use projects. Overall, the Department is responding to market demands in high growth areas of the state. The following sampling of projects from around the state provides an overview of the REMB's current activities.

- **Northwestern Land Office**
 - Spring Prairie – In Kalispell, a neighborhood plan and zoning was prepared for Section 36, also known as Spring Prairie. The plan identifies land use opportunities for retail commercial, professional offices, and residential, among others. A 60-acre lease has been authorized for a commercial center, with Lowes Home Improvement Center and Costco as anchor tenants. The sale of an easement is pending to allow future construction of a high school. An easement purchase of land to accommodate the Highway 93 By-Pass through Section 36 is also pending. Up to 160 acres of residential property within the section may be offered for sale in 2005.
 - Whitefish Neighborhood Plan – In the vicinity of Whitefish, a neighborhood plan is underway for 13,000 acres of Trust Lands within the Whitefish and Flathead County planning jurisdictions. The plan would identify land use objectives for commercial, conservation, industrial, and residential uses on lands currently classified as “forest”.
- **Southwestern Land Office**
 - Seeley Lake – Approximately 18 acres of frontage on Seeley Lake have residential potential. An unrecorded plat identifies 12 lots. Local review and approval of lots at this location is desirable.
 - Seeley Lake Airport – Section 36 near the Seeley Lake Airport would be suitable for a variety of uses. The property is bounded on 3 sides by

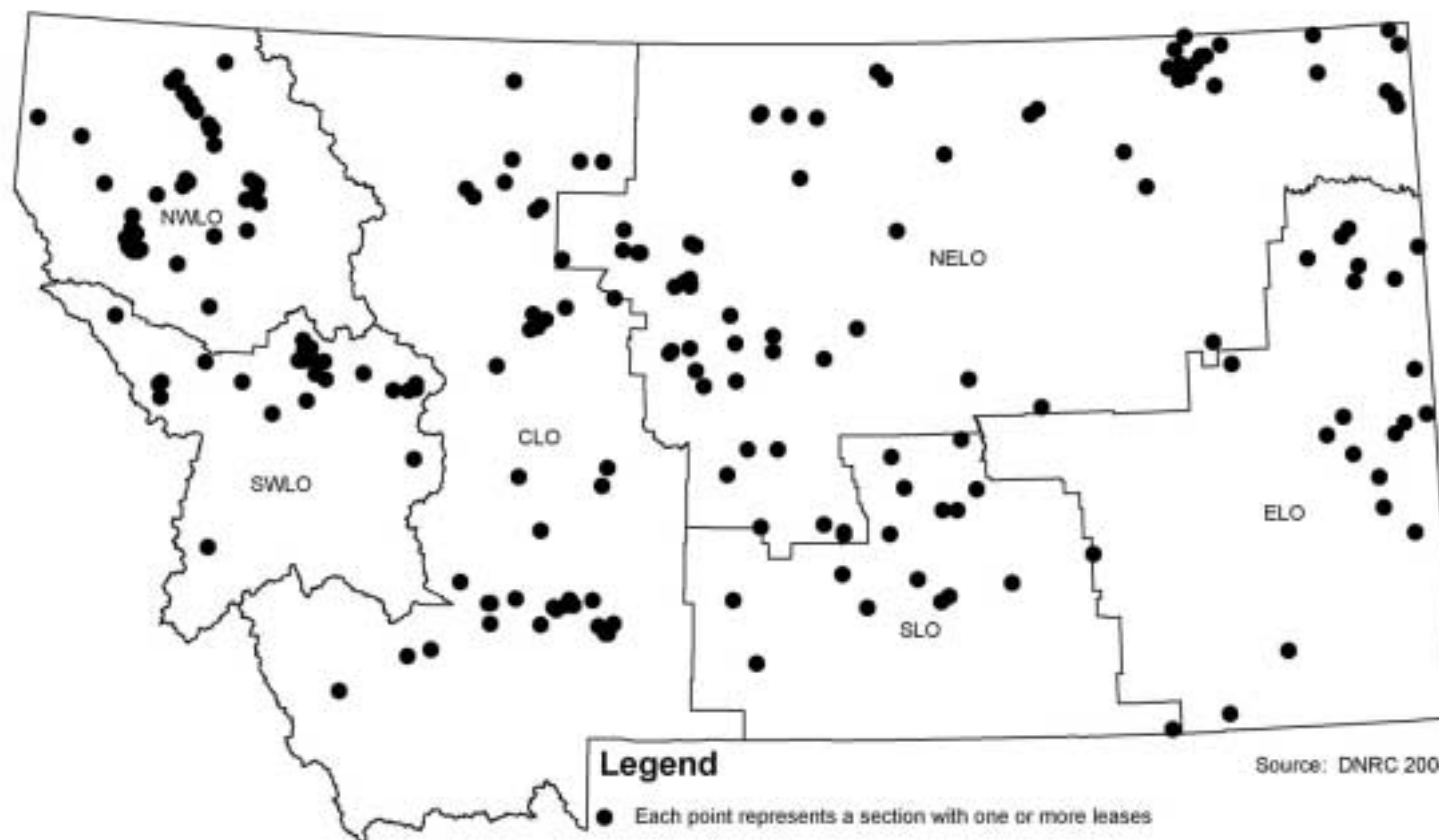
existing development and inquiries have been made for residential uses, sewer system, and developed recreation facilities.

- Reserve Street – The REMB received 2 commercial lots on Reserve Street in Missoula from a land exchange with MDT. The property is being marketed for commercial leasing.
- Central Land Office
 - Lewis and Clark Commerce Center – SW ¼ Section 36, T1S, R5E (approximately 33 acres): The final Plat is recorded and Lot 1, Block 1 lease is completed and a office building has been constructed and other lease proposals are being considered. Marketing of available lease lots to prospective tenants continues.
 - Mandeville Property – Section 36, T1S, R5E (216.73 acres): REMB submitted a preliminary development plan of the property to the city in 1998. The City of Bozeman is currently applying for an easement for a new transfer station and city shops. The REMB and the city will make a joint annexation proposal. The area will be zoned M-1 in accordance with the Bozeman 20/20 Community Plan.
 - Alaska Road Commercial Site – NW ¼ Sec. 12, T1S, R4E (3 acres): Located adjacent to Belgrade interchange (SE corner), this is a parcel recently acquired in an exchange with MDT. Currently the Bureau is waiting for the City of Belgrade to complete their extension of public services and annexation plan. Project will require annexation into City of Belgrade and participation in an SID for the extension of services in the area.
 - Amsterdam Road – Section 11, T1S, R4E (436 acres): This property is located immediately southwestern of Belgrade I-90 interchange. Currently under agricultural use, this parcel is targeted in the Belgrade area master plan for commercial/business/residential use. Annexation, rezoning, and development of a neighborhood plan is pending.
 - Fox Farm Residential – SW ¼ Sec. 23, T20N, R3E (90 acres): This property is located immediately adjacent to south boundary of Great Falls City Limits. Existing housing development lies along the north boundary of property. River frontage and level topography give this site high potential for development. Potential uses are: open space/recreation fields, condominiums, residential housing, and a retirement complex.

- I-15 10th Ave S Commercial Subdivision – NW ¼ SE ¼ Sec.15, T20N, R3E (4 acres): Currently Hampton Inn leases the entire parcel. Inquiries are being explored for sub-lease possibilities.
- Southern Land Office
 - Continental Divide/Skyview Ridge – N ½ Section 20, T1N, R26E (approximately 238 acres undeveloped): This property is located immediately adjacent to the Billings Heights. All but three lots have been sold from the first subdivision; remainder of property is grazing land and is targeted for conversion to commercial/business/residential use. A contract is in place for a Master Plan amendment and a second contract is for a Minor Subdivision. A proposed Aquatics Center on the Trust Land is dependent on passage of June bond.
 - North Billings Properties – T1N, R25E (9 sections -approximately 4610 acres): This property is located north of the city of Billings adjacent to a residential subdivision with a proposed equestrian center and golf course. A proposal by Montana Department of Transportation will look at an inner belt loop road that would provide increased access for development of these properties for residential and business development. There is also a strong interest for recreational use and open space.

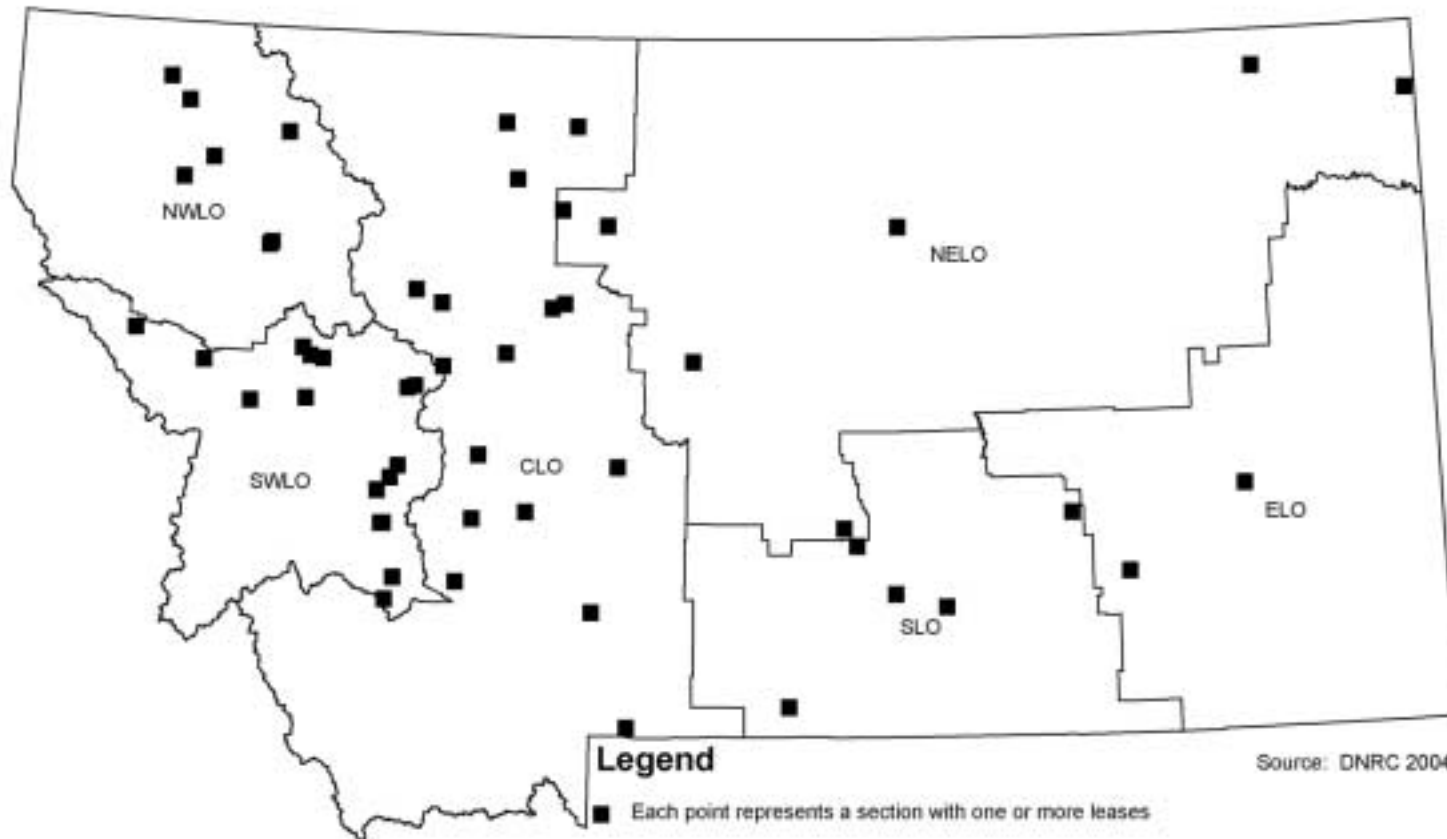
Map Exhibit 3-3.

General Locations of Existing Real Estate Leases on Trust Lands - Residential



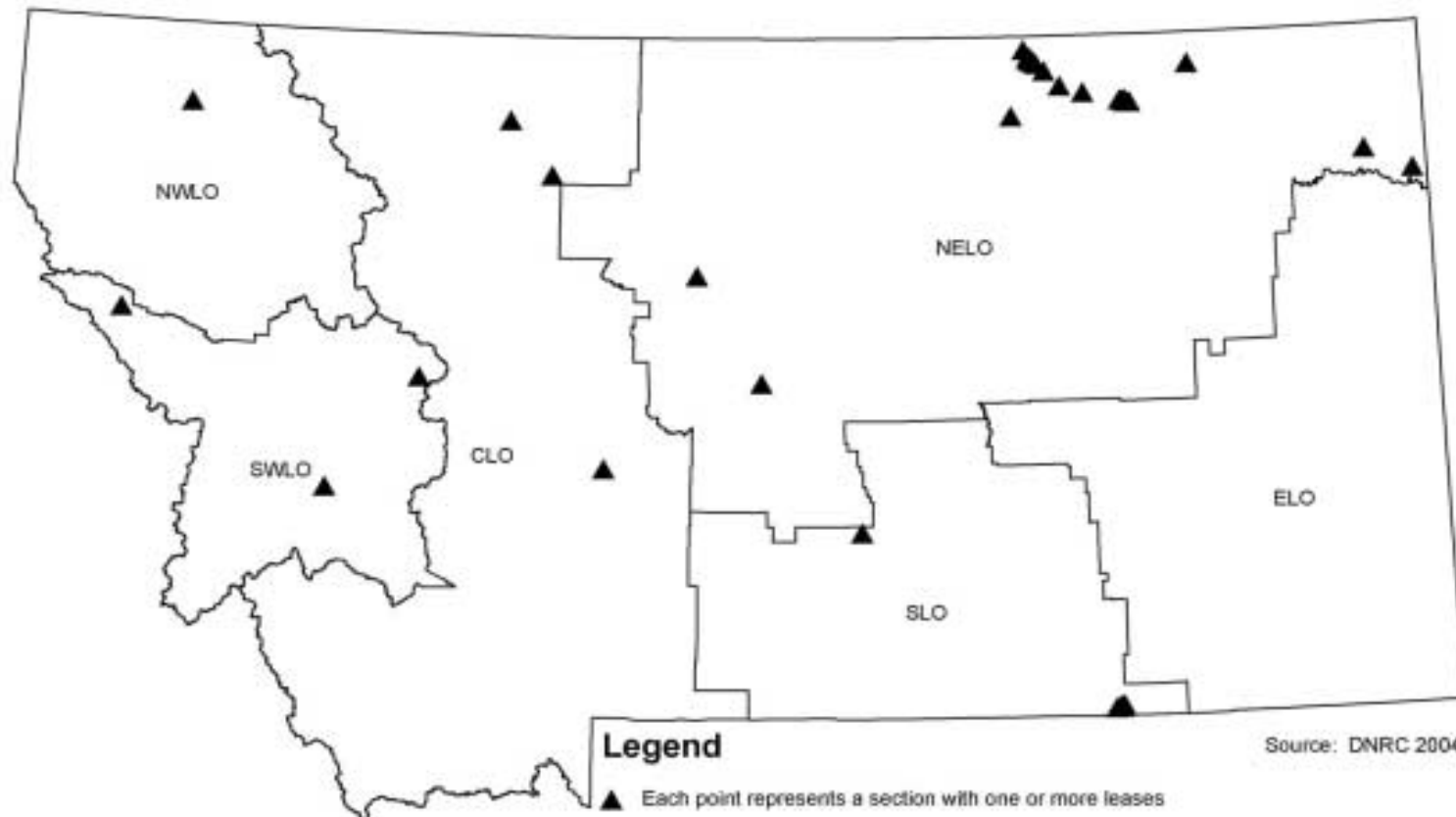
Map Exhibit 3-4.

General Locations of Existing Real Estate Leases on Trust Lands - Commercial



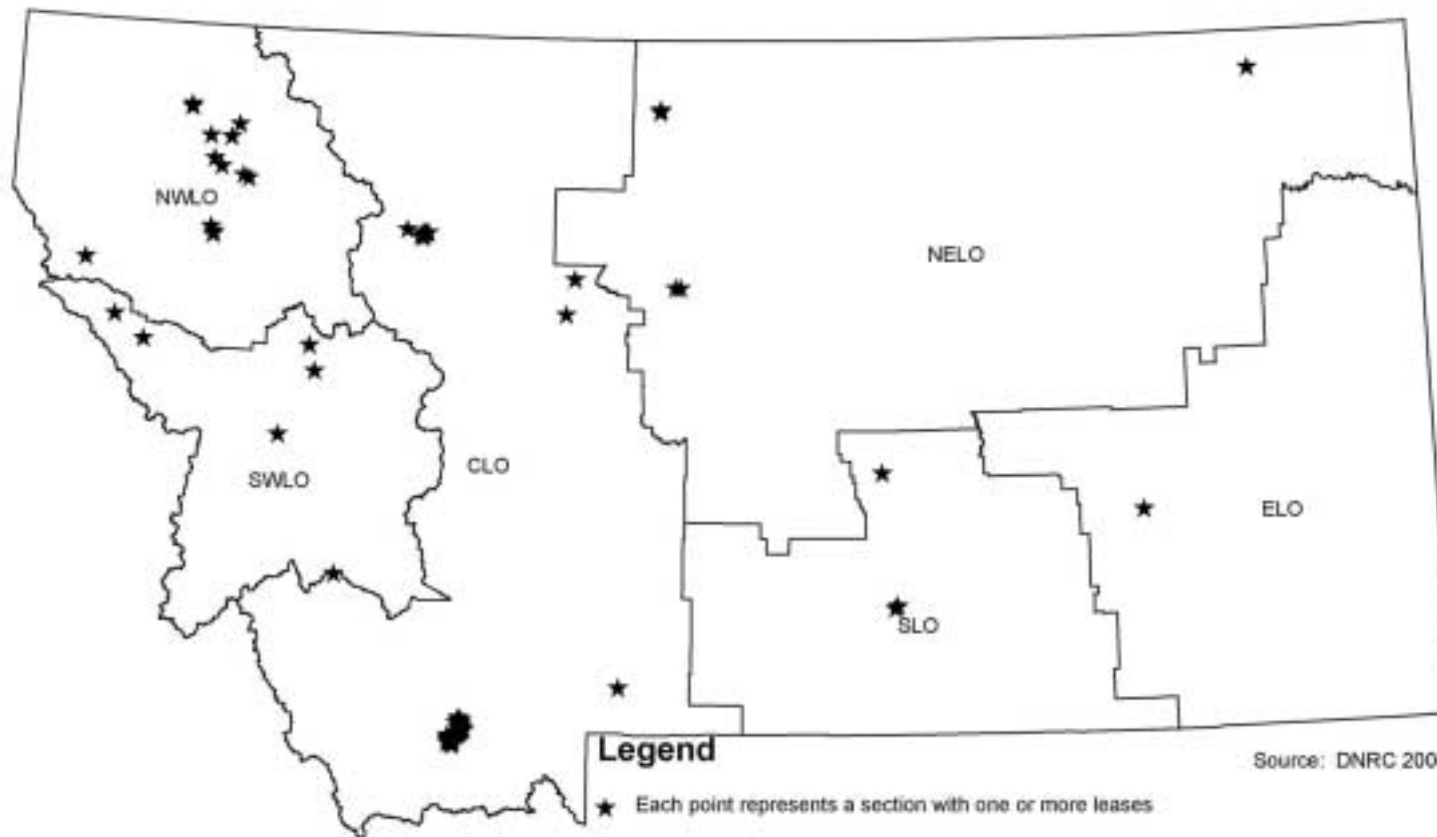
Map Exhibit 3-5.

General Locations of Existing Real Estate Leases on Trust Lands - Industrial



Map Exhibit 3-6.

General Locations of Existing Real Estate Leases on Trust Lands - Conservation



3.2.5 Trust Land Economics

DNRC releases an annual report that provides an accurate description of bureau activities and revenue. In addition, an annual report is issued on the Return on the Asset Value by Trust and Land Office for State Trust Lands. Both of these annual reports are posted on the DNRC web site and are available in hard copy upon request. The reader is encouraged to examine these reports for more detailed information on Trust Land economics.

Trust Lands are affected by local growth indices (population and economics) and the proposed alternatives presented in Chapter 2 suggest that Trust Lands will share in the expected growth of communities. Information on population and economic growth trends in Montana are presented in Section 3.2.1 of this Chapter and in Appendix B.

The following two tables provide summary information on Trust revenue. The first table (Table 3-11) presents a summary of annual net revenue generated by each Bureau of the TLMD. The second table (Table 3-12) is a summary of lease revenue generated by activities managed by the REMB. Not included is revenue from licenses or land sales.

Table 3-11. Trust Net Revenue by Source

Source	FY 1999	FY2000	FY2001	FY 2002	FY2003
Ag and Grazing	\$12,567,944	\$12,972,307	\$13,127,720	\$12,097,023	\$13,072,974
Forest Mgmt.	\$2,894,527	\$7,486,558	\$3,531,233	\$4,996,012	\$3,138,699
Minerals Mgmt	\$6,340,023	\$10,899,180	\$20,147,435	\$8,745,150	\$11,310,736
Real Estate	\$798,840	\$1,157,842	\$982,423	\$1,097,211	\$1,206,388
Total	\$22,601,334	\$32,515,887	\$37,788,811	\$26,935,396	\$28,728,797

Source: Montana DNRC

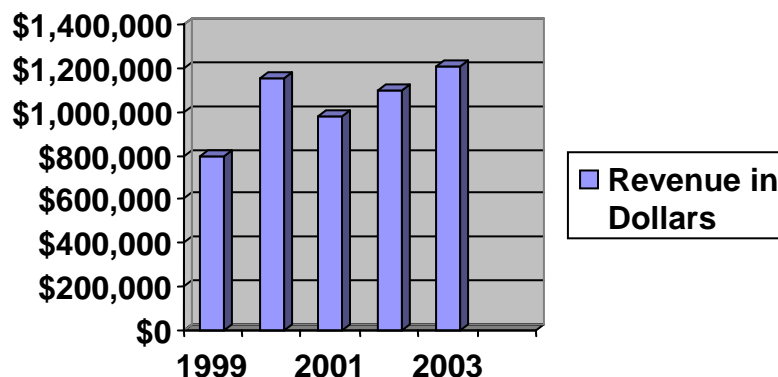
Table 3-12. Real Estate Management Bureau – Current (2003) Annual Lease Income

Land Office	Res. Acres	Res. Revenue	Com. Acres	Com. Revenue	Industrial Acres	Industrial Revenue	Cons. Acres	Cons. Revenue
NWLO	824	\$391,985	859	\$123,963	132	\$16,400	0	0
SWLO	826	\$421,070	208	\$43,050	80	\$16,686	0	0
CLO	298	\$34,830	365	\$52,169	657	\$3,110	13,714	\$82,757

Table 3-12. Real Estate Management Bureau – Current (2003) Annual Lease Income

Land Office	Res. Acres	Res. Revenue	Com. Acres	Com. Revenue	Industrial Acres	Industrial Revenue	Cons. Acres	Cons. Revenue
NELO	574	\$18,978	107	\$6,364	3	\$1,154	760	\$2,392
SLO	100	\$8,900	227	\$17,105	2	\$1,056	160	\$720
ELO	148	\$5,687	10	\$1,560	0	0	0	0
TOTAL	2,770	\$881,449	1,775	\$244,210	874	\$38,405	14,634	\$85,869

While the current program continues to be largely reactive rather than proactive regarding market conditions, revenue to the Department from associated commercial, industrial and residential uses continues to grow. Figure 3-5 shows REMB Bureau revenue for the past five years.

Figure 3-5. REMB Revenue -- 1999-2003

Source – Managing Montana's Trust Lands, Montana Business Quarterly, Winter, 2003, DNRC Return on Asset Report

3.2.6 Existing Planning and Regulatory Programs Within, Which the REMB Operates

3.2.6.1 Local Land Use Regulations

At the local level, land development is subject to three primary types of land use policy and/or regulation. These include subdivision regulations, zoning ordinances and growth policies. Montana statute sets forth the items that must be addressed under each,

although local jurisdictions may incorporate additional elements. Refer to Chapter 5 for details on these regulatory processes and relationship to MEPA analyses. Currently, the REMB follows land use regulatory processes that are required in the development of residential, commercial, and industrial uses at the local level.

3.2.6.2 Habitat Conservation Plan (HCP)

The Trust Lands Division of DNRC is currently preparing a voluntary Habitat Conservation Plan for forest-management activities on State Trust Lands. The HCP will address those lands that provide habitat for species currently listed or those that could be listed under the Endangered Species Act (ESA). The HCP offsets harm caused by lawful activities, such as forest management practices, by promoting conservation measures to minimize or mitigate impacts to threatened and endangered species. The HCP is part of the application for obtaining an "Incidental Take Permit" from the United States Fish and Wildlife Service (USFWS). An Incidental Take Permit authorizes the holder to "take" listed species, including the disturbance of habitat (as defined by the ESA), provided that that species' existence is not 'jeopardized' and the disturbance is within limits defined in the permit. The DNRC HCP would cover forested areas of concentrated and scattered Trust Lands in portions of the NWLO, SWLO, and CLO. The initial proposed duration period for the Incidental Take Permit, and the associated HCP is 50 years, with the opportunity for the State to remove itself from the agreement at any point during the development or implementation of the HCP.

- **HCP Relationship to Transitional Lands** - The boundaries of the HCP and included lands are still being negotiated at the time of this EIS. It is likely that the HCP will exclude and include lands that might be suitable for developed uses. Excluded lands would include those already committed to developed uses and other lands that may not be necessary to the success of the HCP. Included lands would probably recognize those lands that may or may not be suitable for development but have high resource values for grizzly bears (recovery area) or the bull trout (core stream locations), for example.
- **Land Transactions** - It is anticipated that the HCP would establish Land Transaction Rules that govern the totality of forested land dispositions under the HCP. Lands will likely move in and out of the HCP for reasons associated with routine management choices of the DNRC, including actions related to land banking, land exchanges, and in some cases, real estate development. The effects of moving lands in and out of the HCP can be evaluated in a variety of ways. One way is to assess the real estate actions within the HCP coverage area through annual disclosures with the U.S. Fish and Wildlife Service. This would promote an ongoing dialogue with the responsible agencies and help to address any issues that may have been created (or could be avoided in the future) with actions of the REMB.

3.2.6.3 State Forest Land Management Plan (SFLMP), Rules, Access, and Sustained Yield

The SFLMP, approved by the State Land Board in June 1996, guides the management of the forested Trust Lands. Approximately 480,000 acres of Trust Lands are currently classified as 'forest'. This guidance is provided in the form of general management philosophy and specific resource management standards. The strategic guidance provided by the SFLMP is summarized in this excerpt:

Our premise is that the best way to produce long-term income for the trust is to manage intensively for healthy and biologically diverse forests. Our understanding is that a diverse forest is a stable forest that will produce the most reliable and highest long-term revenue stream. Healthy and biologically diverse forests would provide for sustained income from both timber and a variety of other uses. They would also help maintain stable trust income in the face of uncertainty regarding future resource values. In the foreseeable future timber management will continue to be our primary source of revenue and primary tool for achieving biodiversity objectives.

In addition to providing programmatic direction for forest-management actions, the SFLMP also provides for the pursuit of other income opportunities on forested Trust Lands as summarized in this excerpt:

We would pursue other income opportunities as guided by changing markets for new and traditional uses. These uses may replace timber production when their revenue exceeds long-term timber production revenue potential. Where we pursue non timber uses, we may not comply with the biodiversity elements of this alternative. Opportunities might include development rights on a parcel of waterfront land with high recreation potential; home site development; leasing an entire drainage with substantial low-elevation old growth to a coalition of environmental groups; or a land exchange program designed to increase the average income-producing value of our holdings. However, because we expect these other income opportunities to occur on a minor amount of the forest acreage, these uses would not compromise the overall fundamental premise of managing for biodiversity.

The SFLMP also addresses conflicting land uses and recreational opportunities as summarized in the following excerpts:

- **Conflicting Land Uses**
 - *We would consider adjusting our management activities so they are compatible with adjacent lands, when doing so is consistent with the general philosophy of the SFLMP (the word "alternative" was used in the original text, but was replaced with SFLMP for clarity in this document).*
 - *We would coordinate activities with adjacent landowners on a case-by-case basis.*
 - *When conflicts did occur, we would consider covenants or conservation licenses as long as the trust was adequately compensated. These covenants or licenses may not fully comply with the biodiversity elements of this alternative. However, because we expect these other income opportunities to occur on a minor amount*

of the forest acreage, these uses would not compromise the overall fundamental premise of managing for biodiversity.

- Recreational Opportunities
 - *General recreational use (currently defined as including noncommercial and non-concentrated hunting fishing and other activities determined by the Land Board to be compatible with the use of State lands; general recreational use does not include the use of streams and rivers by the public under the stream-access law provided in Title 23, Chapter 2, Part3) would be allowed on legally accessible lands with the purchase of a Recreational Use License.*
 - *Cabin sites would continue to be leased and new ones developed where appropriate.*
 - *We would develop recreational opportunities as guided by the changing markets for new and traditional uses. These land uses may not comply with the biodiversity elements of this alternative. However, because we expect these other income opportunities to occur on a minor amount of forest acreage, and such site-specific changes in use will be subject to further environmental review, these uses would not compromise the overall fundamental premise of managing for biodiversity. These activities would only be pursued where the revenue potential exceeds that of current use or complements the current use.*
- Rules – In February 2003, the State Land Board approved Forest Management Administrative Rules that provide programmatic direction for the Forest Management Program. These rules are written in support of the resource management standards contained within the SFLMP. These rules apply to all timber-management activities initiated as of the date of acceptance of these rules by the State Land Board.
- Programmatic EIS Relationship – The relationship between the general management philosophy and strategic guidance provided by the Programmatic EIS and the SFLMP exists three ways:
 - Timber Management Program Predominant, But other Uses Coexist - Lands where timber management would be the primary predominant use, but secondary uses covered by the Programmatic EIS simultaneously exist, and the secondary uses are compatible with timber management (e.g., general recreational use). The SFLMP would direct the timber management activities and the programmatic EIS would direct the secondary uses. If a conflict arises between the primary and secondary uses, the direction from the SFLMP and associated documents would prevail.
 - Real Estate Program Predominant - Lands where timber management would be replaced as the primary predominant activity by proposed uses covered under the Programmatic EIS. The

proposed use *a*) has successfully progressed through the Funnel Filtration process; *b*) has demonstrated revenue generation that exceeds the long-term timber production potential, and *c*) has use(s) that conflict with the strategy and direction in the SFLMP. DNRC would change the classification of these lands from 'classified forest' to 'classified other' (e.g., industrial/commercial development), and these lands would be managed under the direction and strategic philosophy of the programmatic EIS.

- Real Estate Program Predominant, But Timber Management Uses Coexist -Lands where timber management would be replaced as the primary predominant activity by proposed uses covered under the Programmatic EIS. The proposed use *a*) has successfully progressed through the Funnel Filtration process; *b*) has demonstrated revenue generation that exceeds the long-term timber production potential, and *c*) includes timber management as a secondary use, but in a manner that conflicts with the strategy and direction in the SFLMP (e.g., residential development with a large tract of designated open space held under a conservation easement). Land reclassification to "other" would not occur on the managed forest portion of the affected property. The strategic direction and philosophy for the developed acres would come from the programmatic EIS. The direction corresponding to timber management would come from specifications established within the lease, license, or easement that authorized the change in primary use. These specifications may not comply with the biodiversity elements of the SFLMP. If conflicts arise between the two primary uses, the direction from the Programmatic EIS, associated documents, and lease/license/easement would prevail.
- Access – The SFLMP and the rules direct DNRC to establish transportation systems for the minimum number of road miles, built to a minimum standard necessary to avoid unacceptable adverse impacts. In many cases, potential Programmatic EIS uses would require a different standard. When timber management remains the predominant use, SFLMP direction would prevail, unless a secondary use provides for funding and adequate analysis to warrant a different standard. When Programmatic EIS uses are predominant, Programmatic EIS direction or specifications in the document authorizing use would prevail.
- Timber Management Sustained Yield – For lands where timber management remains the primary predominant use, secondary Programmatic EIS uses that occur simultaneously should have minimal

affect on the sustained yield. Any affect would be captured in the regularly scheduled sustained yield calculation (at least every 10 years).

- For lands where the primary, predominant use changes from timber management to another use that results in land reclassification, the sustainable yield may be affected. However, it is not anticipated that the affect would be of the magnitude requiring immediate adjustments; therefore, any corrections would occur during the regularly sustained-yield calculation schedule (at least every 10 years).
- For lands that change the primary predominant use from timber management to another use but timber management remains, to some extent, as a continued opportunity, the sustained yield may or may not be affected. These types of actions would need to be evaluated on a case-by-case basis to determine whether sustained-yield adjustments are necessary before the next scheduled sustained-yield calculation. This type of evaluation would look at the number of affected acres, the productivity from those acres, and the change in the direction for timber management on those acres.

3.3 DESCRIPTION OF RELEVANT RESOURCES RELATED TO THE PHYSICAL AND BIOLOGICAL ENVIRONMENT

3.3.1 Geology and Soil

3.3.1.1 Introduction

This section describes the general geology and soils present throughout Montana. Descriptions assume that parent materials are distributed evenly across all ownerships. The USDA Natural Resources Conservation Service (NRCS), USDA Forest Service (USFS) and DNRC have completed detailed descriptions of soils across Montana. Information presented in this section was derived from the State Forest Land Management Plan Final Environmental Impact Statement. Detailed soils information for planning and evaluation of projects is kept at DNRC offices throughout the state.

3.3.1.2 General Statewide Overview

Soil is a basic natural resource essential for human survival. Rich, healthy soil provides economic opportunities for growth and development. State lands cross a diverse landscape of soils, varying with changes in geologic parent material, climate, vegetation and age of weathering.

The diverse topography of Montana is the result of several geologic forces acting over millions of years. We can group soils on state lands according to the bedrock or parent

material deposits in which the soils are forming. The western third of the state is characterized by the Rocky Mountains, which began forming approximately 70 million years before present.

Soil in the Northwest, Southwest and Central Land Offices is typically young with weakly defined soil horizons. Soil in extreme northwestern Montana is overlain with a mantle of volcanic ash that is less pronounced to the east and south. Soil in the Northeastern, Southern, and Eastern Land Offices is typical of those that occur under grasslands and in cool and dry moisture regimes. Surface soil layers are typically fine textured loams though range from silty clay to sandy loam. Northeastern Montana soil is derived from glacial till. Soil in the Eastern Land Office typically has high erosion rates due to poor infiltration and high run-off. Soils are moderately deep, generally fine-textured, poorly drained, calcareous, alkaline, and saline; and typically contain a large amount of rock. The soil surface is mostly bare ground often with a white salt crust (ABI 2001). Soil of southeastern Montana is typically derived from shales, siltstone, clay stone, and sandstone.

3.3.1.3 Regional Overview

- Northwestern Land Office--Mountain ranges in the Northwest Land Office areas are generally long and relatively narrow, trending north-south, and separated by wide glaciated valleys. Mountain slopes, ridges, and cirque lands were strongly shaped by alpine glaciation. The soils of the DNRC Northwestern area include deep glacial tills, outwash deposits, and residual soils forming from weathered bedrock. The bedrock types are mainly quartzites, argillites, and limestone formations of resilient Belt precambrian rocks. These relatively young soils have weak development and commonly have gravelly loam and gravelly silt loam textures. A high percentage of forest lands have a productive volcanic ash-influenced light surface soil that retains moisture and nutrients important to plant growth. Forest growth potential is highest in this area of the state because of its precipitation levels and productive soils. Valley soils are comprised of alluvium, glacial outwash and lacustrine deposits and are used for agricultural purposes as well as home sites, acreages and urban areas.

The TLMD manages approximately 314,400 acres of Trust Lands in the Northwestern Area. Approximately 50% of these acres have slopes greater than 25% or are in the floodplain.

- Southwestern Land Office--Mountain ranges in the Southwest Land Office areas are generally long and relatively narrow, trending north-south, and separated by wide glaciated valleys. Western Montana mountains within the Southwest Land Office, are composed of shale, quartzite, limestone, and a variety of igneous rocks and are characterized by high elevation ranges and high plateaus (Alwin 1983). Mountain slopes, ridges, and cirque lands were strongly shaped by alpine glaciation. Bedrock/parent material types are more diverse in the Southwestern area than in the Northwestern,

and so are the soils. Roughly one-quarter of these lands have a volcanic ash-influenced surface, which increases soil productivity. Some of the more sensitive soils are forming in granitics on the Sula State Forest. Intermountain valleys are composed of alluvium, glacial till, outwash, and lacustrine sediments. Valley elevations range from approximately 1,800 to 4,500 feet. The forest soils of the DNRC Southwestern area are mainly residual soils weathering from bedrock, with some glacially-influenced soils. Forest productivity is more moderate in this area due in part to lower precipitation rates and more droughty soils. Valley soils are greatly influence by glaciation, and lake bed deposits. Much like the Northwestern area, agriculture, home sites, and urban uses dominate the valleys.

The TLMD manages approximately 233,500 acres of Trust Lands in the Southwestern Area. Approximately 37% of these acres have slopes greater than 25% or are in the floodplain.

- Central Land Office--The Central Land Office contains the Rocky Mountain Range from the Canadian border south to Idaho and Wyoming borders. Glaciation has modified most alpine areas. Valley bottoms are usually composed of unconsolidated sediments. Foothills, terraces, fans, and floodplains that formed in alluvium, outwash, and lacustrine sediments occur throughout the area. The Rocky Mountain front contains thrust faulted and folded mountains composed of sedimentary and metasedimentary rocks. These mountains contain argillite, siltite, and quartzite in the northern regions; mudstone and sandstone in the middle region; and, limestone and dolomite in the southern region. The Bitterroot Valley and surrounding mountains are glaciated fault-block mountains formed from complexly folded and faulted sedimentary and igneous rocks. The Beaverhead Mountains are composed of block-faulted mountains and foothills formed in gneiss, volcanics, and a variety of metasedimentary bedrock. The Yellowstone Plateau contains steep dissected mountains and high elevation uplifted plateaus formed from volcanic and metasedimentary rock. Volcanics are most apparent within Yellowstone National Park where islands of gneiss and schist occur within andisite and rhyolite ridges. Surrounding mountain ranges are formed from sedimentary and metamorphic rocks with inclusions of volcanic rock. Intermontane valleys formed in alluvium and tertiary sediments divide the steep mountains.

The TLMD manages approximately 1,254,500 acres of Trust Lands in the Central Area. Approximately 16% of these acres have slopes greater than 25% or are in the floodplain.

- Northeastern, Eastern, Southern Land Offices--The eastern two-thirds of the state is essentially a broad plain, punctuated in the middle third by island mountain ranges. Much of the current landscape was shaped within

the last two million years, during which several glacial episodes occurred in Montana. The central and east-central portions of the state are characterized by prairies dissected by major drainages, and isolated 'island' mountain ranges. In general, the land slopes eastward from the foot of the Rocky Mountains to the North Dakota border. The Belt mountains are a group of island mountains, rolling foothills, and uplifted mountains that contain bedrock consisting of sandstone, shale, limestone, mudstone, and metasedimentary rocks; with isolated areas of volcanics, igneous intrusions, and gneiss. North of the Missouri River to the Canadian border, the landscape is broken by many potholes and moraines, remnants of the last glacial episode, approximately 12,000 years ago. Southeastern Montana is characterized by broad prairies underlain by sedimentary rocks, and often eroded into badlands, and flat-topped buttes. The Big Horn and Pryor Mountains formed in limestone, sandstone, and shale and are composed of dissected plains, hills, slopes, terraces, and fans. The area is nearly flat to steep (1 to 80% slope), and has contouring micro benches on middle or lower slopes. Elevations in eastern Montana range from 4,000 feet in the island mountains to 2,000 feet in the northeastern corner.

The TLMD manages approximately 2,003,300 acres of Trust Lands in the Northeastern Area, 382,120 acres in the Southern Area, and 965,750 acres in the Eastern Area. Approximately 2.5% of these acres have slopes greater than 25% or are in the floodplain.

3.3.2 Water Resources

3.3.2.1 Introduction

In this section, the current condition of the water resources is described in terms of lakes, streams, and wetland and riparian areas across Montana. The discussion centers on water distribution, sources of pollution and extent of impairment to these watershed resources.

3.3.2.2 Regulatory Framework

While water quality and quantity protection is the responsibility of all individuals, Montanans have developed regulations to ensure the protection of Montana's waters. In addition to the state regulations, local and federal regulations such as the Clean Water Act and have been passed to provide for clean water. Existing regulations that may require permits are listed below in Table 3-14. Although this list is not considered complete, it covers the most common regulations.

Table 3-14. Water Related Regulations		
Regulation/Permit	Purpose or requirements	Agency Responsible
<i>Montana Stream Protection Act (SPA 124 Permit)</i>	Protect and preserve fish and wildlife resources and to maintain stream and rivers in their natural or existing state.	Montana Fish, Wildlife and Parks
<i>Montana Floodplain and Floodway Management Act</i>	To restrict floodplain and floodway areas to uses that will not be seriously damaged or present a hazard to life, if flooded, thereby limiting the expenditure of public tax dollars for emergency operations and disaster relief	Local floodplain administrator, county planner, sanitarian, building inspector, town clerk or county commissioner
<i>Federal Clean Water Act (404 Permit)</i>	To restore and maintain the chemical, physical, and biological integrity of the nation's waters.	U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency
<i>Federal Rivers and Harbor Act (Section 10 Permit)</i>	To protect the quality and quantity of navigable waters in the United States. Montana waters included are all or part of the Missouri River, Yellowstone River and Kootenai River	U.S. Army Corps of Engineers
<i>Short-term Water Quality Standard for Turbidity (318 Permit)</i>	To provide a short-term water quality turbidity standard for construction activities, protect water quality and minimize sedimentation. Activities must be carried out in accordance with conditions prescribed by the Department of Environmental Quality.	Montana Department of Environmental Quality

Table 3-14. Water Related Regulations

Regulation/Permit	Purpose or requirements	Agency Responsible
<i>Montana Land-Use License or Easement on Navigable Waters</i>	To protect riparian areas and the navigable status of the water body and to provide for the beneficial use of state lands for public and private purposes in a manner that will provide revenues without harming the long-term capability of the land or restricting the original commercial navigability.	Department of Natural Resources and Conservation, Trust Land Division
<i>Montana Water Use Act (Water Right Permit)</i>	To provide a permit and certificate system of water rights administration, maintain a general adjudication of all existing water rights in the state, and to implement a centralized record system in addition to the local courthouse records.	Department of Natural Resources and Conservation, Water Rights Bureau
<i>Montana Water Use Act (Water Reservations)</i>	To provide water for existing and future beneficial uses of water, and to maintain a minimum flow, level or quality of water.	Department of Natural Resources and Conservation, Water Rights Bureau
<i>Storm water Discharge General Permits</i>	To prevent degradation of state waters from pollutants such as sediment, industrial chemicals or materials, heavy metals, and petroleum products; protect existing water quality; and, to implement and monitor the effectiveness of best management practices used to reduce pollutant loads.	Montana Department of Environmental Quality
<i>Public Water Supply Watersheds</i>	Requires the submission, review and approval of detailed plans and specifications before beginning the construction of any new railroad, logging road, electric or manufacturing plant in a public supply watershed.	Montana Department of Environmental Quality
<i>County Septic System Regulations</i>	Requires approval for anyone proposing to construct, alter, extend or operate a sewage treatment and disposal system.	County Sanitarian
<i>General Mining Laws</i>	Requires permit for operating a placer, dredge, hard rock, coal, sand or gravel mine on private or public land	Montana Department of Environmental Quality
<i>Lakeshore Protection Act</i>	Requires permit private individuals and government entities proposing to do work in or near a body of water with a	County Government

Table 3-14. Water Related Regulations		
Regulation/Permit	Purpose or requirements	Agency Responsible
	county's jurisdictional area.	
<i>Montana Dam Safety Act</i>	Applies to construction, repair or removal of any dam that impounds 50 acre-feet or more at normal operating pool.	Department of Natural Resources and Conservation, Water Operations Bureau Dam Safety Program
<i>Montana Pollutant Discharge Elimination System (MPDES permit)</i>	Applies to all discharges to surface or groundwater including those related to industrial, municipal, and other commercial discharges.	Montana Department of Environmental Quality
<i>Montana Water Quality Act</i>	Prohibits the pollution of state waters and the placement of wastes in a location where they are likely to cause pollution of any state water.	Montana Department of Environmental Quality
<i>National Pollutant Discharge Elimination System</i>	This permit is much like the MPDES permit, except for the jurisdiction. The NPDES permit is used for permitting on the Flathead Reservation.	U.S. Environmental Protection Agency

3.3.2.3 Assumption for Current Uses

Potential impacts to water quality from current special use lease holders is related to the distance from a surface water body and the terrain between the use location and water body. Sediment delivery efficiency is higher on steep ground due to gravity. Transport of nutrients, organic and inorganic compounds are equally more efficient on steeper terrain. While Montana has a wide range of terrain with varying degrees of steepness, this section does not attempt to individually locate leases. Instead, this section categorizes uses other than grazing, agriculture and timber and describes the potential impacts that may occur without mitigation, best management practices, or development standards. Several state and federal agencies require mitigation as a condition of environmental permitting.

- Commercial -- Commercial leases includes office buildings, retail space, golf courses, restaurants, television stations, animal feedlots, livestock corrals, advertising signs, beehives, gravel storage, fire stations, community halls, developed recreation sites such as public fishing accesses, campgrounds, ski trails, athletic fields, equestrian trails, rifle/archery ranges and other similar uses.

Within this category, current impacts to water quality vary with the degree of development as well as the proximity to surface water. Office buildings, retail space, restaurants, television stations, community halls and fire stations with paved/asphalt areas may have increased storm runoff of inorganic and organic compounds, oil, grease, nutrients, and sediment.

Increased nutrients from sewer systems may also be present. Leases such as athletic field, fishing accesses, campgrounds and ski trails may have increased nutrients in runoff from fertilizers and/or sewer systems and increased sediment delivery potential due to vegetation removal. Animal feedlots and livestock corrals have increased potential for nutrient and sediment delivery from animal waste and vegetation removal. Impacts to water quality are minimal from uses such as beehives and advertising signs.

Other state and federal agencies such as the Montana Department of Environmental Quality and the US Environmental Protection Agency under the Clean Water Act generally regulate impacts to water quality within this category. These agencies require mitigations and design features to ensure water quality standards are met.

Within the commercial category, current leaseholder use requirements range widely. On the high end of the scale, it is estimated that restaurants use 7-10 gallons per patron per day. On the lower end of the scale, water use per beehive is negligible. Regardless of the use requirements, leaseholders are bound to water availability (legally and physically) as permitted by the DNRC Water Resources Division.

- Conservation -- Conservation leases include nature trails, wildlife areas/refuges, natural areas, and similar situations where development potential is constrained.

Water quality impacts related to conservation leases are limited to sediment delivery from roads, trail and stream crossings.

- Industrial -- Industrial leases include manufacturing, highway maintenance shops, fire lookouts, airports, military training sites, sanitary landfills, electrical substations, effluent distribution sites, grain bin locations, pipelines for oil/gas/water, and reclamation sites from mining.

Current industrial leases may impact water quality from nutrients, organic and inorganic compounds and toxic materials. Sanitary landfills likely impacts groundwater as waste materials leach into the groundwater and eventually mix with surface waters. Airports and highway maintenance shops potentially impact surface water quality from roadway de-icing materials, sediment and petroleum products. In addition to the impacts from road and runway related impacts, sewer systems may impact water quality with nutrients. Reclamation sites likely have existing impacts to water quality from mining debris. In addition, sediment may be loosened and transported to surface water bodies. Lesser degrees of potential impacts to water quality are likely occurring from grain bin sites, although

nutrient delivery is possible. Effluent distribution sites have the potential for nutrient transport to surface water bodies during runoff events.

- Residential -- Residential leases include leases for home/cabin sites, lawns, outbuildings, water wells and similar uses.

Cabin sites are generally near lakes or in aesthetically pleasing locations or homesteads associated with farming and ranching. Home/cabin sites near surface water may impact water quality by increasing sediment from driveways and nutrients from septic systems and lawn fertilizers. In addition, vegetative filters may be reduced or eliminated by the lessee in an effort to improve aesthetics. Many of the home/cabin sites leases currently incorporate development standards to minimize impacts, however several leases were developed prior to standards that reduce or eliminate impacts to water quality.

3.3.2.4 General Statewide Overview

Montana is dissected by approximately 166,708 miles of streams and contains more than 691,826 acres of named ponds, lakes and reservoirs greater than 5 acres each (DEQ, 2002). Freshwater wetlands and riparian areas cover between one and five percent of the state (DNRC, 1996).

Despite their relatively small land area, riparian-wetland communities occupy a unique position on the landscape, with their importance far exceeding their total area. The abundance of shelter, water, and forage make these areas attractive for many animal species. Riparian zones support a greater concentration of wildlife species and activities than other locales on the landscape (Thomas et al 1979, Pfister and Batchelor 1984, Oakley et al 1985 (SFLMP)).

In addition, these areas play a critical role, both hydrologically and geomorphically, in the stream ecosystem. Bank stability, water quantity, stream temperature, and water chemistry are all functions of the health of the streamside plant community.

- Surface Water Distribution -- Three major river systems drain most of the land surface in Montana. West of the Continental Divide, in the *Southwestern* and *Northwestern* Land Offices, the Clark Fork River and its tributaries flow generally westward, entering the Columbia River and eventually discharging into the Pacific Ocean near Portland, Oregon. East of the Divide, the Missouri and Yellowstone rivers and their tributaries flow generally north and eastward, joining in western North Dakota and eventually entering the Mississippi River and discharging into the Gulf of Mexico near New Orleans, Louisiana.

Lesser drainage systems include the Kootenai River in extreme northwestern Montana, which enters the state from Canada and flows through Idaho and eventually into the Columbia River; the St. Mary's River

system flowing north into Canada and the Hudson Bay drainage; and several small rivers in extreme eastern Montana flowing east into North Dakota and the Little Missouri River drainage.

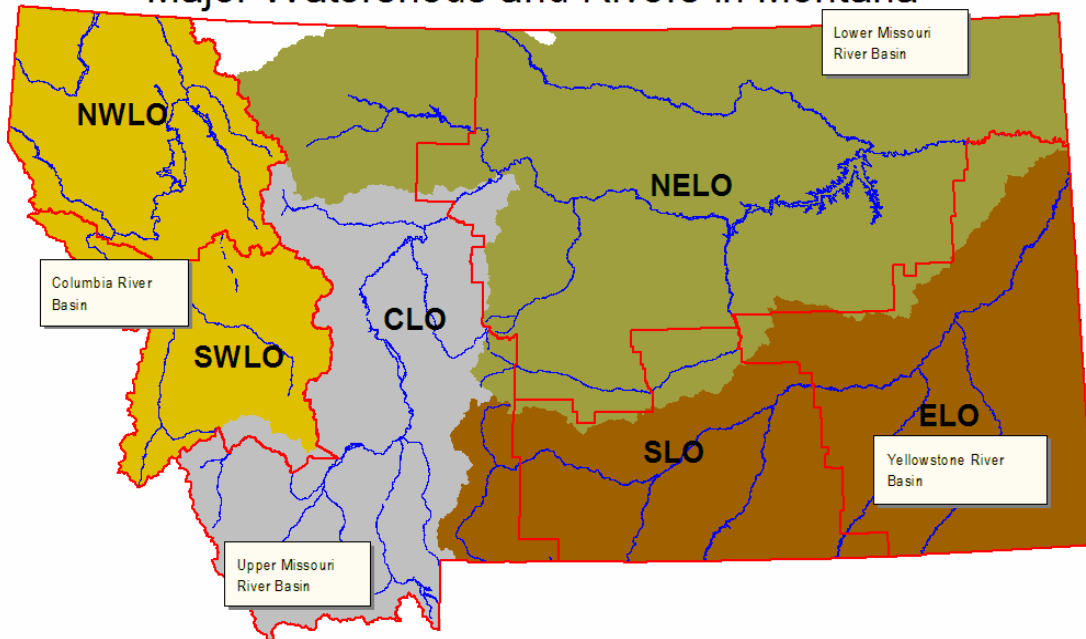
Major tributaries of the Clark Fork River include the Flathead, Bitterroot, and Blackfoot rivers. Dams have been built on the Clark Fork and Flathead rivers for hydroelectric power generation and flood control.

The Missouri River is formed by the convergence of the Jefferson, Gallatin, and Madison rivers near Three Forks, Montana within the *Central Land Office*. It flows north and east to the confluence with the Yellowstone River near the Montana – North Dakota border in the *Northeastern Land Office*. Tributaries include the Marias, Musselshell, and Milk rivers. A number of dams have been built in the Missouri River system, including three near Helena, four near Great Falls, and one near Fort Peck. Fort Peck Reservoir is the largest man-made body of water in the state. These dams provide hydroelectric power, flood control, and irrigation water (MDoA 1992).

The Yellowstone River originates in Yellowstone Park and flows north and east into eastern Montana through the *Southern* and *Eastern Land Offices*, joining the Missouri River in western North Dakota. Major tributaries include the Stillwater, Clark's Fork of the Yellowstone, Bighorn, Tongue, and Powder rivers. No dams have been built on the Yellowstone, though there are a number of irrigation diversions along its course. The river's water is primarily used for irrigation and domestic purposes (MdoA 1992). Figure 3-6 displays the four major watersheds and the major rivers in Montana.

Figure 3-6

Major Watersheds and Rivers in Montana



- **Surface Water Quality – All Land Offices --** Surface water quality varies widely across Montana. Because of geology, streams and rivers in western Montana are generally high quality water, with low levels of dissolved solids and sediment. Streams and rivers flowing through eastern Montana are slower, lower gradient, and often contain high quantities of sediment and dissolved solids from natural conditions and agricultural runoff; including nitrates from fertilizer and manure.

The Montana Department of Public Health and Human Services (MDPHHS) has developed standards limiting the levels of pollutants released into surface water. Water quality standards are based on stream classification, and are set by administrative rule (ARM 16.20.601 *et seq.*).

Montana water bodies are classified according to the present and beneficial uses that they normally would be capable of supporting. The state Water-Use Classification System (ARM 17.30.604-629) identifies the following beneficial uses:

- Drinking, culinary use, and food processing
- Aquatic Life support for fishes and associated aquatic life, waterfowl, and furbearers

- Bathing, swimming, recreation and aesthetics
- Agriculture water supply
- Industrial water supply

Approximately 94% of the total stream miles assessed in Montana fully support all their designated uses (derived from 2002 305(b)). Streams not meeting the beneficial use are considered impaired. An “impairment” was defined as the violation of some water quality standard, whether qualitative or quantitative. According to the Montana 2002 Assessment Database, approximately 9,661 miles of stream and 489,583 acres of lakes and wetlands are considered impaired. Table 3-15 displays the distribution of impaired water bodies by watershed.

Table 3-15: Surface Water body Impairments by Watershed		
Watershed	Miles of Impaired Stream	Acres of Impaired Lakes/Wetlands
Columbia	2,550	162,427
Upper Missouri	3,083	62,293
Lower Missouri	3,079	256,711
Yellowstone	949	8,152
Total	9,661	489,583

From Montana §305(b) Report (2002)

The Water Quality Division of MDEQ, in compliance with the federal Clean Water Act §305(b), is required to submit a biennial report to the EPA on the status of the state's water quality. The Montana §305(b) report provides an overview of Montana's surface water quality assessment program. It is a companion to the *2002 Montana 303(d) List: A Compilation of Impaired and Threatened Water bodies in Need of Water Quality Restoration*. As required by the federal Clean Water Act, the *303(d) List* focuses on those waters in the state, which have been assessed as having one, or more of their beneficial uses impaired by human-caused pollution. Four impairment classifications were used in the 2002 Sufficient Credible Data (SCD) Assessment.

- *Fully Supporting Water Bodies* had no significant or known use impairments.
- *Threatened Water Bodies* were also Fully Supporting water bodies, but at risk of degradation.
- *Partially Supporting Water Bodies* had one or more uses slightly or moderately impaired, but with most uses supported.
- *Not Supporting Water Bodies* had one or more uses severely impaired, but with most uses supported.

Table 3-16 quantifies the impairments by beneficial use for streams assessed during the 2002 SCD assessment process. The causes of

impairment that affect the most miles of streams and rivers are (1) other habitat alterations, (2) flow alteration, (3) siltation, and (4) metals. The largest sources of impairment, which may not be directly related to the causes of impairment, include agriculture (crop and grazing related), hydromodification and resource extraction.

Table 3-16. Stream Impairment Status

	Applicable <i>Miles</i> Assessed	Fully Supporting	Not Supporting	Partial Support	Threatened	Insufficient Data
Aquatic Life Support	20,099	2,007	1,998	6,243	0	9,851
Cold Water Fishery	11,948	951	1,943	4,334	8	1,748
Warm Water Fishery	8,343	972	113	2,363	0	4,895
Drinking Water Supply	14,533	4,004	2,796	215	0	7,548
Primary Contact (Recreation)	20,099	4,725	556	2,931	136	11,752
Agriculture use	14,533	8,330	98	714	0	5,391
Industrial Supply	14,533	7,965	168	1,004	0	5,396

Modified from Montana §305(b) Report (2002)

Table 3-17 quantifies the impairments by beneficial use for lakes, ponds, reservoirs and wetlands assessed during the 2002 SCD assessment process. The causes of impairment that affect the largest acreage of lakes, reservoirs and wetlands are (1) metals, (2) mercury, (3) noxious aquatic plants, and (4) lead. The largest sources of impairment, which may not be directly related to the causes of impairment, include atmospheric deposition, agriculture, resource extraction and abandoned mining.

Table 3-17. Lake/wetland/reservoir impairment status

	Applicable <i>Acre</i> Assessed	Fully Supporting	Not Supporting	Partial Support	Threatened	Insufficient Data
Aquatic Life Support	604,760	80,861	6,733	188,019	7,550	321,597
Cold Water Fishery	547,296	202,547	6,971	40,611	7,550	289,617
Warm Water	61,366	3,040	300	13,180	0	44,846

Fishery						
Drinking Water Supply	591,761	172,012	301,809	953	0	116,988
Primary Contact (Recreation)	604,760	205,107	38,512	270,803	0	90,338
Agriculture use	591,761	233,157	3,628	48,753	0	306,224
Industrial Supply	591,761	286,757	3,628	3,778	0	297,599

From Montana §305(b) Report (2002)

The TLMD manages trust lands surrounding several streams considered to be impaired for one or more beneficial uses. Table 3-18 displays the miles of streams and acres of lakes/wetlands/reservoirs within these managed lands.

Table 3-18: Impaired Water Bodies under DNRC Trust Land Management by Land Office

Land Office	Miles of Impaired Streams	Acres of Impaired Lakes, Wetlands and Reservoirs*
Central Land Office	120	21.6
Eastern Land Office	6	0
Northeastern Land Office	128	0
Northwestern Land Office	48	1.9
Southern Land Office	7	23.6
Southwestern Land Office	50	0
Total	359	47.1

*Additional impaired lakes may be found within Trust Land section, however these lakes are considered navigable and are not considered to be Trust lands.

- Ground Water Resources – Statewide -- Groundwater occurrence, distribution, quantity, and quality depends on many site-specific factors, including climate, geology, and topography. There are two broad classifications of water-bearing formations in Montana: consolidated and unconsolidated aquifers (MdoA 1992). Both classifications occur across Montana.

Consolidated aquifers are found in rock formations dating from Pre-Cambrian to Tertiary age, and may be in sedimentary, metamorphic, or igneous rocks. Water may be found in interstices of the original rock, or in fractures, fissures, and cavities that have formed in the original rock formation. Water movement in these formations is highly variable. It is often less than in unconsolidated formations, but may be relatively fast in well-connected fracture systems. The volume of water is usually less than

in unconsolidated aquifers because of the relatively small spaces in bedrock systems (MdoA 1992).

Unconsolidated aquifers are generally found in alluvial deposits, glacial deposits, or from mass-wasting processes. They are formed of gravel, sand, silt, clay, and boulders, and reach their greatest development in montane valleys, where they may reach several hundred feet thick (MdoA 1992). In other areas, they range from 10 to 100 feet thick. Coarse grained, well-sorted deposits usually have high rates of water movement (dozens of feet per day) whereas small grained or poorly sorted deposits have low rates of water movement (a few feet or less per day)(MdoA 1991). The majority of groundwater obtained in Montana is from alluvial (stream-deposited) aquifers. In eastern and north-central Montana, water movement is considerably slower in these aquifers than in western and south-central Montana. This is partly due to the precipitation differences in these locations.

Water quality in both consolidated and unconsolidated aquifers is generally good throughout the state, though contamination is present in some locations. Sources of local contamination may include septic systems, underground storage tanks, injection wells, mineral processing, agricultural wastes, miscellaneous spills, and uncontrolled releases of hazardous wastes. The severity of impacts to groundwater depends upon a number of factors, including type and volume of contaminant, hydrogeologic setting, and existing uses of groundwater (MdoA 1992).

- Riparian Areas and Wetlands – Statewide -- A large portion of this section has been adapted or reprinted from the State Forest Land Management Plan Final Environmental Impact Statement (1996). Additional information on riparian and wetland areas can be obtained from this source.

Riparian areas have been described as zones of transition between upland and aquatic environments in which vegetation and microclimate are strongly influenced by the aquatic system (Gregory et al 1991). A more visually descriptive definition would be that riparian areas are green zones associated with lakes, reservoirs, estuaries, potholes, springs, bogs, fens, wet meadows, and ephemeral, intermittent, or perennial streams.

Hall (1988) reported that riparian ecosystems can be changed by management activities such as livestock grazing, timber harvesting, road building, or through natural factors such as fire, stream energy and beaver activity. Other wildlife activities that affect riparian conditions are known to occur, at least locally. However, since wildlife species are not concentrated or restricted by fences, as are livestock, it is generally felt that impacts from wildlife are negligible when considered statewide.

Analysis of historical conditions suggests that the integrity of riparian areas has been compromised by the often-combined effects of beaver removal, large organic debris removal, logging, livestock grazing, and road construction. The impact of these activities on plant communities, stream morphology, and water quality and quantity depends on the care taken to minimize and mitigate damage from such activities. Mountain riparian ecosystems probably have not changed as much as more accessible lowland floodplain areas. Meehan (1991) provides a good summary of the effects of physical disturbances and forest and rangeland management activities on the water resource.

Significant degradation of Montana wetlands began with beaver trapping in the early 1800's. In the last 100 years the rate of change in riparian areas has increased significantly due to ever growing human pressures. As land values and product demands increased, there was great economic pressure to plant, graze, harvest, and build as much as feasible. Some of these sites were associated with wetland or riparian areas and were significantly affected by these human activities.

- Status of Riparian Areas and Wetlands – Statewide -- A broad scale description of the condition of the state's wetland and riparian conditions can be made. The Montana Riparian and Wetland Association characterizes wetlands and riparian areas as either Functional, Functional-At-Risk, or Non-Functional.

Functional wetlands or riparian areas are capable of filtering sediment, maintaining stream bank stability, building banks, dissipating water energy, storing water and aquifer recharge, among others.

Functional-At-Risk connotes wetlands or riparian areas that are presently capable of functioning properly but are in danger of decline through natural or human activity.

Non-Functional, as the name indicates, are those wetlands or riparian areas that are not functioning properly.

Functioning wetland and riparian areas can be found throughout Montana, but they are usually small and isolated. Glacier National Park and Jewel Basin in the Flathead National Forest, two large functioning riparian areas, are exceptions to this rule. Throughout the state, however, most wetlands are classified as Functional-At-Risk or Non-Functional.

The riparian areas in the eastern part of the state are the most strongly affected, primarily along smaller streams. Many stream riparian areas are significantly degraded. In fact, very few prairie streams have not been altered in terms of riparian vegetation, riparian function, stream stability, or wildlife habitat (Hansen, personal communication as cited in DNRC,

The rugged mountains and broad intermontane valleys in Western Montana can be divided into two areas: Northwest and Southwest. The Southwest shows some fairly significant riparian degradation from livestock grazing. The impact of silviculture is not nearly as severe as that of grazing, but is nonetheless important (Hansen, personal communication as cited in DNRC, 1996). Riparian function in Southwest Montana seems to be between Functional-At-Risk and Non-Functional.

Characterizing a statewide trend in riparian condition would be a tenuous effort at best. However, considering the amount of publicity and time devoted to educating landowners about the inherent worth and productivity of riparian areas in combination with state and federal legislative efforts aimed at protecting them, we may assume that the steep downward trend in riparian condition has leveled a bit in recent years. Certainly areas do exist where riparian condition has improved or degraded measurably, but as a whole the trend is probably toward less degradation.

This section gives a brief overview of the water resources and Other Uses in each land office. In general terms, uses are consistent across the state within each of the four use categories except for residential. Table 3-19 exhibits other use acreages in each category by land office.

Area Office	Commercial	Industrial	Residential	Conservation	Total
NWLO	859	132	824	0	1,815
SWLO	208	80	826	0	1,114
CLO	365	657	298	13,713	15,033
NELO	107	3	574	760	1,444

SLO	227	2	100	160	489
ELO	10	0	148	0	158
Total	1,776	874	2,770	14,633	20,053

- Northwestern Land Office -- The Clark Fork River is the largest river flowing within the boundaries of the Northwestern Land Office (NWLO). The Flathead River is the major tributary to the Clark Fork River in the NWLO boundary. The Kootenai River is the other major river system in the NWLO.

The Flathead River watershed drains the north portion of the Clark Fork basin. Headwaters for this system originate in Glacier National Park, the Bob Marshall Wilderness and Canada. Flathead Lake, the largest freshwater lake in the United States west of the Mississippi River, is positioned in the middle of the Flathead River system.

The Kootenai River originates in Canada, flows through the northwest corner of Montana into Idaho and back into Canada before discharging into the Columbia River. Although the Kootenai River drains only about three percent of Montana, it discharges more water than the Yellowstone or Missouri Rivers. Lake Koocanusa reservoir—created by Libby Dam-- is the second largest reservoir in Montana for capacity and impounds approximately 48 miles of the Kootenai River.

Trust Lands within the Northwestern Land Office area are randomly located across the landscape except for the Stillwater, Swan River, Coal Creek and Thompson River State Forests. The state forests are blocked or checkerboard ownership and represent approximately 165,700 acres of the 314,400 acres in the Northwestern Land Office jurisdiction. Current residential uses are generally recreational cabins and many are located on area lakes and streams.

- Southwestern Land Office -- The Clark Fork River basin is the largest basin in the Southwestern Land Office (SWLO) boundary. Major tributaries to the Clark Fork that originate in the SWLO include Blackfoot and Bitterroot Rivers.

Elevations range within the basin from the headwaters within the SWLO including the Pintlar Wilderness (10,700 feet) near Anaconda and the Bitterroot mountains (10,000 feet) to the Cabinet Gorge Reservoir (2,175 feet) where the Clark Fork River leaves Montana. Average discharge of the Clark Fork near the Idaho border is 17,620 cubic feet per second (cfs). Extreme recorded flow ranges from a low of 60 cfs in 1989 to a high of 124,900 cfs in 1964 (USGS 1989). The Clark Fork River Basin includes

more than twenty large reservoirs and natural lakes each exceeding 5,000 acre-feet of storage.

Trust Lands within the Southwestern Land Office area are randomly located across the landscape except for the Sula, Clearwater State Forest, and Lincoln State Forests. The state forests are blocked and checkerboard ownership and represent approximately 22,000 acres of the 233,500 acres in the Southwestern Land Office jurisdiction. Current residential uses are generally recreational cabins and many are located on area lakes and streams.

- Central Land Office -- The Missouri River is formed by the convergence of the Jefferson, Gallatin, and Madison rivers near Three Forks, Montana within the Central Land Office (CLO) boundary. Other tributaries to the Missouri within the CLO area include the Sun River, the Dearborn River and majority of the Marias River.

Canyon Ferry Lake, Holter Lake, Clark Canyon Reservoir, Lake Frances, Tiber Reservoir and Hauser Lake are a few of the large bodies of water within the CLO area that are available for a variety of uses.

Trust Lands within the Central Land Office area are randomly located across the landscape. Current residential uses are generally recreational cabins and many are located on area lakes and streams.

- Northeastern, Eastern, Southern Land Offices -- The Missouri River flows north and east to the confluence with the Yellowstone River near the Montana – North Dakota border in the *Northeastern Land Office*. Tributaries include the lower Marias, Musselshell, and Milk rivers. Average discharge near the North Dakota border is 10,660 cfs. Extreme recorded flow ranges from a low of 575 cfs in 1941 to a high of 78,200 cfs in 1943 (USGS 1989). Fort Peck Reservoir is the largest man-made body of water in the state.

The Yellowstone River originates in Yellowstone Park and flows north and east into eastern Montana through the *Southern* and *Eastern Land Offices*, joining the Missouri River in western North Dakota. Major tributaries include the Stillwater, Clark's Fork of the Yellowstone, Bighorn, Tongue, and Powder rivers. Extreme flows recorded near Sidney, Montana, range from a low of 470 cfs in 1971 to a high of 159,000 cfs recorded in 1921 (USGS 1989). No dams have been built on the Yellowstone, though there are a number of irrigation diversions along its course. The river's water is primarily used for irrigation and domestic purposes (MdoA 1992).

Trust Lands within the Northeastern, Eastern and Southern Land Office areas are located across the landscape in a general pattern of Section 16 and

Section 36 for each township. Current residential uses are generally associated with older homesteads for year round residents but some recreational summer cabins also exist.

3.3.3 Fisheries

3.3.3.1 Introduction

In the simplest terms, the fishery resource is comprised of the physicochemical properties of water and the surrounding environment and the biological components that support the 85 recognized species of fish found in Montana. Most of the trust land management activities affect fish populations only indirectly, through impacts on the aquatic environment in which they live. Consequently, this assessment focuses on the aquatic environment.

In the remainder of this section, we describe the current condition of fisheries resources using representative species as indicators. We discuss species in terms of their historical and current distribution in Montana lakes, rivers, and streams.

3.3.3.2 Regulatory Framework

Montana Fish, Wildlife and Parks (MFWP) is the state agency charged with managing Montana's fisheries resources. While fisheries population management is a large part of their objectives, habitat management, both directly and indirectly, is undertaken by MFWP.

Other agencies within Montana maintain and/or improve habitat a variety ways on lands under their jurisdiction. Maintaining riparian areas, wetland and implementing forestry best management practices are a few of the methods employed.

Laws and regulations that pertain to fisheries are also those that relate to water quality. A table of applicable laws can be found in section 3.3.2 of this document.

3.3.3.3 Assumptions

The wide dispersal of state lands throughout Montana, with the aquatic environment running through many different ownerships, makes describing the aquatic environment on state lands difficult. We do not have extensive, quantitative data for state lands alone; however, since fish habitat is intrinsically related to overall water quality, for the level of evaluation appropriate for a state-wide programmatic plan, we assume:

- Fish habitat quality is directly correlated with water quality.
- Water quality on state lands is directly correlated with water quality on adjoining lands.

The rationale for accepting overall water quality conditions as representative of fish habitat quality on state land is as follows. The water quality assessment was based on "source" parameters such as agriculture, silviculture, resource extraction, and

hydromodification; and “cause” parameters such as nutrients, siltation, thermal modification, and suspended solids. These same parameters directly affect fish habitat.

Also, the same authorities legally responsible for water quality protection promote fisheries habitat protection. Water quality standards stipulate “water quality must be suitable for propagation of salmonid fishes and associated aquatic life” (ARM 16.20.618).

Water quality protection through proper watershed management is an important component of maintaining fish habitat. Healthy aquatic systems are important to ecosystem integrity and the fisheries resource. Wildlife is recognized as an important resource to many people, and fisheries are an important part of Montana's wildlife resource. Fisheries concerns relate to all these issues. The following are among the most important ways that human activities affect fisheries in Montana.

- Habitat Alteration: Aquatic habitat can be adversely affected by a variety of land and water uses including timber harvest, mining, livestock grazing, road construction, subdivision development, and point sources of water pollution such as sewage treatment plants.
- Water Management: Reservoir operations, downstream flow fluctuations, and de-watering affect fish abundance and distribution.
- Introduced Species: Introduced species impact native species due to hybridization, predation, and competition for forage, habitat and spawning sites.
- Angler Demands: The estimated total angler use in Montana in 2001 was 2,748,106 angler days (Scott Rumsey, personal communication, 2003).

3.3.3.4 General Statewide Overview

Montana has a diverse fishery due to its geologic history and geographic setting. Montana contains headwaters of three major drainage basins (Columbia, Missouri/Mississippi, and Saskatchewan) and contains numerous low to high elevation streams and lakes. The state contains both warm water and cold-water fisheries. There are 2,000 natural lakes, 50 reservoirs of 500 acres or larger, 15,000 miles of cold water streams, and 1,300 miles of warm water streams. In addition, there are thousands of smaller reservoirs and thousands of miles of intermittent streams, many of which support some fish populations. Approximately 1% of Montana's surface area is covered by water. There are 85 fish species present in Montana with about 50 of these believed to be native to the state.

The cold-water fishery is dominated by three introduced trout species (rainbow, brown, and brook trout). Native trout (cutthroat trout, bull trout, and arctic grayling) have incurred local as well as widespread population declines. Diversion of water for irrigation purposes and dams on major drainages has contributed to the decline of native trout, as have introductions of non-native species. Although native to the Saskatchewan River drainage system, the lake trout has been introduced to Flathead Lake west of the Continental Divide. Two species of salmon have also been introduced into larger reservoirs. Cold-water fish species are very sensitive to dewatering of streams and rivers

during summer. Maximum water temperature becomes a critical factor in dewatered streams (Brown 1971).

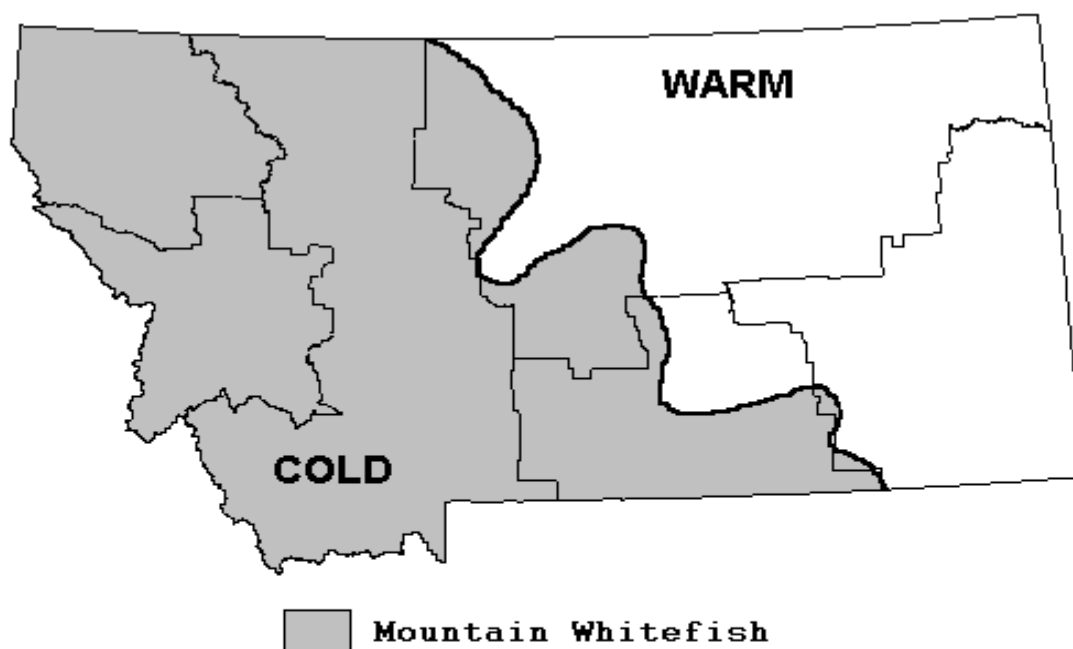
Montana has several unique warm water fish species including the paddlefish, three species of sturgeon, and burbot. Many of the native fish species on major drainages are migratory and dam construction on these drainages has impacted several of these species. Warm water fish species tend to be more tolerant of heavy sediment loads and warm water than cold-water fish. The walleye and northern pike are two warm water fish species that have been extensively introduced into Montana and continue to thrive (Brown 1971).

Of the 85 species of fish found in Montana, 55 species are native, 30 are introduced. Some of these species are declining, with 18 native species presently listed as species of special concern. While the Pallid Sturgeon and White Sturgeon (Kootenai River population) are the only fish listed as endangered in Montana, the bull trout is listed as threatened and the fluvial arctic grayling is considered as a candidate species for listing. A *candidate* species is defined as a species for which the USFWS has sufficient information on biological status and threats to propose to list them as threatened or endangered.

Montana's aquatic environments represent a wide range of conditions, from alpine lakes and snow-fed streams in the West to large, turbid rivers in the East. A correspondingly wide variety of fish species occupy this aquatic habitat. We do not have population inventories or research data to tell us all species that are present in all waters of the state, nor does DNRC have full information on the habitat needs of every species. Therefore, the focus of this assessment is on certain species whose habitat needs are better known, and which probably share habitat associations with many other fish species.

The state is divided into two broad habitats: those that support cold water species, and those that support warm water species (Figure 3-7). The warm water type includes transitional, or cool water species. Because the Mountain Whitefish is very abundant and requires cold, clear water in order to thrive, it can be assumed that waters holding healthy, viable populations of Whitefish indicate the extent of cold water fisheries in the state. Headwaters areas are classified as coldwater if a viable population of mountain whitefish exist in the tail waters of that river system.

Figure 3-7. Assumed Ranges of Cold and Warm Water Fisheries in Montana



DNRC chose bull trout and westslope cutthroat trout to represent the habitat needs of cold water species because these fish are very susceptible to human-induced environmental changes such as decreases in stream flow; increases in temperature, pollution, or siltation; and competition with introduced exotic species. In consultation with other fisheries biologists, the goldeye and largemouth bass have been chosen as representative of warm water species because their habitat requirements are thought to reflect the needs of many other warm water fish.

- **Westslope Cutthroat Trout** -- Westslope cutthroat trout are not as abundant as they once were, and many of those that remain are not genetically pure. The historic range of westslope cutthroat trout in Montana included all drainages west of the Continental Divide; those portions of the Missouri River drainage upstream from Fort Benton; and the headwaters of the Marias, Judith, Musselshell, and Milk Rivers. The distribution and abundance of westslope cutthroat trout has declined in the last 100 years (Liknes 1984). Genetically pure strains are estimated to exist on up to 9% of the historic range in Montana (Shepard et al. 2003). The MFWP lists westslope cutthroat trout as a "species of special concern." They are also on the USFS Region One Sensitive Species list.

Westslope cutthroat trout prefer the cold temperatures typically found in headwaters areas. In large bodies of water their preferred habitat includes rocks, sandy or rocky shores, and deep waters. In small streams they favor rocky areas, riffles, deep pools, logs and overhanging banks (Everhart and Seaman, 1971; Sigler and Miller, 1963; Brown, 1971).

West of the Continental Divide, the upper Flathead River drainage basin contains the largest population of westslope cutthroat trout in Montana. The area currently occupied corresponds to about 85 percent of the historic range in that drainage, and about 58 percent of the known pure strains statewide are located there. The Clark Fork River drainage (below the mouth of the Bitterroot River) may have the second largest population. East of the Continental Divide, the Smith River drainage holds the largest population of native westslope cutthroat trout (Liknes, 1984).

Westslope cutthroat trout also populate Montana lakes. Liknes reported that 259 lakes actually do, or are thought to, contain westslope cutthroat trout populations. About six percent of the lakes are known to contain genetically pure strains. Roughly 94 percent of the lakes with pure strains are found within the confines of Glacier National Park. The remaining six percent are found on the Flathead Indian Reservation. Only four lakes or reservoirs east of the Continental Divide were reported to contain populations of westslope cutthroat trout.

- **Bull Trout** -- Thomas (1992) estimated that bull trout currently occupy 42 percent of their native range in Montana. Rothschild and DiNardo (1987) concluded that species such as bull trout with specific requirements are likely to be more sensitive to habitat change and less able to persist in times of change.

The Montana Bull Trout Restoration Team has published Bull Trout Status Reports for the following drainages: Bitterroot River, Blackfoot River, Upper Clark Fork River, Flathead River, and South Fork Flathead River. Additionally, draft documents are available for the following watersheds: Middle Clark Fork, Lower Clark Fork, Upper Kootenai, Middle Kootenai, Lower Kootenai, Swan, and Oldman.

Rieman and McIntyre (1993) state that although bull trout are found throughout larger river systems, spawning and rearing fish are often found only in a small portion of the available stream reaches. Rearing and resident fish often use tributaries of larger river systems, while migratory fish use much more of the entire river drainage.

Bull trout are listed as "threatened" by the USFWS and as a Species of Special Concern by MFWP and the Natural Heritage Program. With the "threatened" listing, the USFWS has separate responsibility under the Endangered Species Act for development of a federal recovery plan and

designation of critical habitat. A draft Recovery Plan built on the foundation of state restoration plans and proposed critical habitat were released in November 2002. Approximately 3,319 miles of stream and 217,577 acres of lake/reservoir are proposed as critical habitat, of which 60% is in federal ownership, 1% tribal, 5% state/local and 34% private.

Meehan (1991) gives a complete description of the habitat requirements of the above Salmonids. For an in-depth analysis of the correlation between land management activities and fisheries, see Meehan (1991) and Salo and Cundy (1988).

- **Goldeye and Largemouth Bass** -- The distribution of the goldeye is limited to locations east of the Continental Divide. They normally prefer large river systems, but they are also found in large lakes (Paetz and Nelson, 1970; Trautman, 1980; Brown, 1971). Goldeyes seem to prefer highly turbid waters and do not seem to invade colder water environments.

Largemouth bass are typically found in the southeastern portions of the state. Their preference for warmer water likely precludes movement westward. However, all but the deepest lakes are typically warm enough to support viable populations of largemouth bass.

Neither goldeye nor largemouth bass are considered threatened or sensitive. Their historical range has probably not diminished or changed in Montana.

- **Fish Species of Concern** -- Unless otherwise cited, Montana fishes of special concern were adapted from the Montana American Fisheries Society website located at <http://www.fisheries.org/AFSmontana/index.htm>.
 - *Torrent Sculpin* -- This native fish inhabits rubble and gravel riffles of rivers and, to a lesser extent, rocky lake shores. According to the Montana Fisheries Information system, this species is found only in the Northwestern Land Office boundary (Page and Burr, 1991).
 - *Spoonhead Sculpin* -- The spoonhead sculpin is listed as a species of special concern due to its limited distribution in Montana. This species is reported to be found in and around Glacier National Park inhabiting swift creeks and rivers as well as lakes (Page and Burr, 1991).
 - *White Sturgeon* -- In Montana the white sturgeon is found exclusively in the lower reaches of the Kootenai River. This species was listed in 1994 as endangered by the USFWS. This fish is a bottom feeder and will eat almost any available organism, dead or alive, including plant material, crustaceans, worms, insect larvae, and detritus.

- *Pallid Sturgeon* -- The pallid sturgeon was listed by the USFWS as endangered in 1990. It is restricted to the Missouri and Mississippi Rivers and their large tributaries (Lee et al. 1980; Ashton and Dowd 1991). They were once found from the headwaters of the Missouri River in western Montana to New Orleans, Louisiana, some 3,400 river miles, but only small portions of this historic range now provide suitable habitat.
- *Paddlefish* -- The paddlefish is an ancient, mostly cartilaginous fish with smooth skin and is a close relative of sturgeons. Paddlefish are found in Montana in the Missouri Yellowstone River basins. Montana is the most westerly state with paddlefish.
- *Shortnose Gar* -- Shortnose gar distribution in Montana is limited to primarily the Missouri River below Fort Peck dam. Typical habitat for the gar is large rivers, quiet pools, backwaters and oxbow lakes. Due to the limited distribution, little is known about this species within Montana.
- *Yellowstone Cutthroat Trout* -- This subspecies was petitioned for listing as a threatened species under the Endangered Species Act in 1998. The petition was rejected by the USFWS in 2001, however the Yellowstone cutthroat trout is considered as a species of special concern by several state and federal agencies in Montana. Distribution in Montana includes the Yellowstone, Bighorn and Tongue River basins.
- *Westslope Cutthroat Trout* -- This subspecies of cutthroat trout is native to Montana on both sides of the Continental Divide with populations in the Kootenai and Clark Fork River basins as well as the headwaters of the Missouri and Saskatchewan Rivers. The USFWS has been petitioned to protect the Westslope Cutthroat trout under the Endangered Species Act. In 2000, the USFWS determined that the listing was not warranted due to the species wide distribution, available habitat in public lands and conservation efforts underway by state and federal agencies.
- *Columbia River Redband Trout* -- The Columbia River redband trout is considered a subspecies of the rainbow trout. The Kootenai River drainage population of redband trout is Montana's only native rainbow trout and represents the furthest inland penetration of redband trout in the Columbia River basin.
- *Bull Trout* -- Bull trout, a threatened species, are native to Montana and are found in many lakes, rivers, and streams in northwestern Montana in the Flathead and Clark Fork river drainages. They generally migrate

upstream into smaller streams to spawn. Their populations have declined due to a number of reasons, including habitat degradation and competition with other trout species. The St. Mary's River in the Saskatchewan basin, draining north into Canada contains the only bull trout population east of the Continental Divide in the United States.

- *Fluvial Arctic Grayling* -- The arctic grayling, a candidate species, is a native fish with relict populations surviving in the upper Missouri River drainage. It has also been introduced into a number of high elevation lakes with tributaries suitable for spawning. Its distribution is now in northwestern, southwestern, and south-central Montana.
- *Sturgeon Chub* -- The sturgeon chub is widespread and commonly found in eastern Montana. More recent collections have found this species is widely distributed in the Missouri, Yellowstone and Powder rivers in Montana.
- *Sicklefin Chub* -- The sicklefin chub is currently listed as a species of special concern by the State of Montana. The first observation of the species was in 1979 in the middle Missouri River upstream of Fort Peck Reservoir. Current distribution includes the Missouri River above Fork Peck Reservoir, the lower Missouri River above the Yellowstone River confluence and the lower Yellowstone River.
- *Pearl Dace* -- The Pearl Dace inhabits pools of creeks and small rivers as well as ponds and lakes. Montana is considered to be on the periphery of the species range.
- *Blue Sucker* -- The Blue Sucker is found in the Missouri River as far up as Great Falls, and in the Yellowstone River upstream of Forsyth, Montana. This species prefers swift current areas of large rivers and feeds on insects in cobble areas. Spawning occurs in tributaries to the larger rivers. The Tongue, Marias, Milk and Teton rivers are the most heavily used for spawning.
- *Trout-perch* -- In Montana, the trout-perch occurs in the South Saskatchewan River Basin, which drains northeastern Glacier National Park and the northwestern portion of the Blackfoot Indian Reservation.
- *Sauger* -- The sauger inhabits sand and gravel runs, sandy and muddy pools and backwaters of small to large rivers; less often uses lakes.
- *Northern Redbelly X Finescale Dace Hybrid* -- This hybrid is fairly widespread east of the continental divide. The hybrid was placed on the species of concern list due to its rarity and unusual form of genetic reproduction.

3.3.3.5 Regional Overview

This section briefly describes the general habitats in each land office. Table 3-20 displays the presence of Species of Special Concern in each land office boundary.

Table 3-20. Presence of Species of Special Concern by Land Office						
Species	CLO	ELO	NELO	NWLO	SLO	SWLO
Torrent Sculpin	-	-	-	+	-	-
Spoonhead Sculpin	+	-	-	-	-	-
White Sturgeon (Kootenai River Population)	-	-	-	+	-	-
Palid Sturgeon	+	+	+	-	+	-
Paddlefish	+	+	+	-	-	-
Shortnose Gar	-	-	+	-	-	-
Yellowstone Cutthroat Trout	+	+	-	-	+	-
Westslope Cutthroat Trout	+	-	-	+	-	+
Columbia River Redband Trout	-	-	-	+	-	-
Bull Trout	+	-	-	+	-	+
Fluvial Arctic Grayling	+	-	-	-	-	-
Sturgeon Chub	-	+	+	-	-	-
Sicklefin Chub	-	-	+	-	-	-
Pearl Dace	-	-	+	-	-	-
Blue Sucker	-	+	+	-	-	-
Trout-perch	+	-	-	-	-	-
Sauger	+	+	+	-	+	-
Northern Redbelly X Finescale Dace	+	+	+	-	+	-

+ Present in Land Office boundary

- Not present in Land Office Boundary

- Northwestern Land Office -- The fisheries located in the Northwestern Land Office boundary are primarily cold-water fisheries although warm water species such as largemouth bass can be found. Fisheries vary greatly from small, forested headwater streams to large lakes and reservoirs. In many of the streams, introduced species such as brook trout compete with native species. Lakes in the Northwestern Land Office area also have introduced species such as the lake trout, which competes with native species. A result of the competition is hybrid fishes and reduced native species densities.
- Southwestern Land Office --Much like the Northwestern Area, the fisheries located in the Southwestern Land Office boundary are primarily

cold-water fisheries although warm water species such as largemouth bass can be found. All of the potential impacts associated with introduced species exist in the Southwestern Land Office.

- Central Land Office -- The fisheries in the Central Land Office represent both warm and cold water species. Due the transitional nature of the Central Land Office boundary, fish habitat diversity is greater than in the other land office boundaries. The headwater streams contain cold water species while the lakes and larger rivers are within the range of warm water fishes.
- Northeastern, Eastern, Southern Land Offices -- Warm water fisheries are primarily found in these land offices although cold-water species are present. Large bodies of water such as Fort Peck reservoir contain a wide variety of fish species.

3.3.4 Wildlife

Montana is a state with a great diversity and abundance of wildlife. Over 650 vertebrate wildlife species have been recorded in Montana, many of which may, at least in part, rely on Trust Lands for their habitat needs. With the exception of most of the species of concern and big game animals, reliable population data is lacking for most species of wildlife in Montana. Additionally, widely accepted research data is lacking on the precise relationships between individual species and their habitat needs. The purpose of this overview is to provide baseline data from which inferences in Chapter IV can be drawn concerning which wildlife species may be adversely and favorably affected.

General Statewide Overview

The majority of mammals that were present at the time of European settlement likely still occur in the state. With nearly 11,000 feet between the lowest and highest points in the state, there is considerable variation in elevation, and concomitantly, habitats. High plains influenced by a continental climate, with mild summers and harsh winters, dominate the eastern 2/3 of Montana. As indicated in the vegetation section, this portion of the state is dominated by grassland and shrub steppe habitats with lush riparian habitats along the major drainages. Isolated mountain ranges support ponderosa pine and Douglas-fir forests. Mountains and valleys that experience a maritime-influenced climate with more precipitation and moderate temperatures characterize the western 1/3 of Montana. Habitats are largely coniferous forests dominated by ponderosa pine, Douglas-fir, lodgepole pine, subalpine fir, western larch, and grand fir. Intermountain valleys are dominated by grassland and sagebrush steppe habitats. Riparian habitats are common along bodies of water and numerous wetlands occur.

Over 94 million acres of wildlife habitat exists within the state. Foresman (2001) identified 108 mammal species known to occupy the state of Montana. Lenard et al. (2003) identified 409 bird species (of which 259 are known to breed in the state), while Maxell et al. (2003) reported 13 amphibians and 17 species of reptiles that occupy the varied habitats within the state. If you exclude the 106 irregular or accidental bird

species from this number you are left with a total of 441 wildlife species that could occur on state lands affected by this document. Table 3-21 displays the distribution of species by taxonomic class.

Table 3-21. Number of wildlife species that have been observed in Montana summarized by taxonomic class.

Seasonal/Migratory Status	Amphibians	Reptiles	Birds	Mammals	Total
Seasonal or Year-long Resident	13	17	259	108	397
Migrates Through State	-	-	44	-	44
Accidental or Vagrant	-	-	106	-	106
Total	13	17	409	108	547

- Mammals

- Ungulates – Mule deer and white-tailed deer are the most abundant and widely distributed big game species in the state, and along with elk are the most commonly pursued big game species. Both deer species are distributed statewide. Mule deer prefer open montane habitats and sagebrush slopes, but will also use coniferous and hardwood forests. White-tailed deer tend to be more ubiquitous, using a wide variety of habitats from forested habitats to open, semi-arid plains. Elk are associated with coniferous mountain habitats in western and central Montana and in coniferous habitats along major drainages in eastern Montana. If not disturbed, elk will also use riparian habitats along major drainages. Although elk utilized open grassland habitats in eastern Montana prior to settlement of the prairies, current elk populations use extensive areas of conifer forests for security cover. Consequently, elk are sensitive to cover loss in forested areas. Elk will often avoid areas intensively grazed by cattle, especially during the growing season. Pronghorn antelope are currently found in most large blocks of shrub/grassland habitat east of the Continental Divide in Montana.

Hunting opportunities for moose, bighorn sheep, and mountain goats are more limited. Moose are restricted to the forested, mountainous western one-third of Montana both east and west of the Continental Divide. Riparian communities are common foraging habitats for moose. Major moose populations are located in the Northwestern and Southwestern Land Offices. Bighorn sheep originally occurred throughout much of Montana wherever suitable habitat was found; in areas of excellent habitat they were often abundant. In Montana they are restricted to semi-open habitats comprised of precipitous terrain with rocky slopes, ridges and cliffs, or rugged river breaks and badlands. Bighorn sheep in mountainous areas are migratory, moving to lower elevations or windblown ridges during winter to avoid deep

snow. Mountain goats were originally restricted to mountain ranges in northwestern Montana, but they have been introduced to many other mountain ranges east and west of the Continental Divide. Like bighorn sheep, mountain goats make altitudinal migrations, seeking windblown ridges or low elevation cliffs during winter and high elevation cliffs during summer. There are probably less than 2,000 mountain goats in Montana. Bison were historically the dominant ungulate in Montana occupying the short-grass prairies, but were nearly extirpated by 1886. One wild herd resides seasonally in Montana and is associated with Yellowstone National Park.

- Carnivores – Grizzly bears, gray wolves, and lynx are further discussed as threatened, endangered, or species of concern in succeeding sections of this sub chapter. Black bears are distributed throughout coniferous forests within the Northwestern, Southwestern and Central Land Offices and are generally restricted to mountainous terrain. Although black bears are omnivorous, plants tend to comprise most of their diet. The mountain lion was only recently removed from the predator list and classified as big game to provide the species with greater protection and to carefully regulate its harvest. Mountain lions have expanded their range considerably in recent years and now occupy a variety of habitats throughout the State; mountain lions are largely restricted to more wooded habitats that provide cover for hunting.

The swift fox is a grassland fox that was extirpated from Montana early in the 20th century, but now has established populations near Browning, Chinook, Malta, and Glasgow within the Eastern Land Office. The river otter and mink are associated with riparian habitats. Wolverine, marten, and fisher are associated with mountainous coniferous habitats in western Montana. The bobcat is widely distributed in Montana both east and west of the Continental Divide and uses any habitat that provides dense hiding cover. Several species, including red fox, striped skunk, several weasels, coyotes, and raccoons, are habitat generalists, using a wide range of habitat conditions. Badgers are largely dependent upon grasslands, particularly open plains and shrub-steppe habitats.

- Small mammals – Several groups of species, including rodents, hares and rabbits, bats, and shrews are large, diverse groups of species that use most if not all habitats within the state, and therefore will be dealt with as a group. Some inhabit waterways and associated wetland and riparian habitats (e.g. beaver and northern bog lemming), where both water-based activities and shoreline activities influence available habitat. Several species are associated with forested habitats (e.g. northern flying squirrels, snowshoe hares, and hoary bats) while others are tied

to alpine and subalpine habitats (e.g. hoary marmots and Columbian ground squirrels). Several rely upon open grassland plains (e.g. northern grasshopper mouse and white-tailed jackrabbit) and semi-arid areas dominated by sagebrush (e.g. desert cottontail and Merriam's shrew). Some bats rely on altered habitats such as mine shafts and bridges for roosting locations. Meanwhile a large number of these species are habitat generalists that use a variety of habitats within the state (e.g. big brown bat and deer mice). Black-footed ferrets and black-tailed prairie dogs are discussed in succeeding sections of this sub-chapter as threatened, endangered, or species of concern.

- Birds – The diverse geography, ecology, and climate contribute to the variety of birds found within the state. There have been 409 bird species recorded in Montana, though 106 are considered rare (less than 20 sightings). There are 259 species that are confirmed breeders in the state (Lenard et al. 2003). Within Montana, many species reach the edges of their geographic ranges, adding to the state's avian diversity. Bird species that may be of special importance to management activities occurring on state lands include a number of federally listed threatened and endangered species (discussed elsewhere), state species of special concern (discussed elsewhere), raptors, upland game birds, waterfowl and shorebirds, woodpeckers, and migrant songbirds. There are 12 species designated as upland game birds, but only nine of these have hunted populations. There are also 23 species designated as migratory game birds; most of these are waterfowl but also included are mourning dove, sandhill crane, and common snipe. Bald eagles, whooping cranes, interior least terns, piping plovers, and yellow-billed cuckoos are discussed in succeeding sections of this sub-chapter as threatened, endangered, or species of concern.
 - Upland game birds – Upland game bird species include forest grouse (blue grouse, spruce grouse, ruffed grouse), shrubland grouse (sharp-tailed grouse and sage grouse), white-tailed ptarmigan, and introduced species such as wild turkey, ring-necked pheasant, gray (Hungarian) partridge, and chukar. The forest grouse tend to be found within the western portions of the state. Sharp-tailed grouse, ring-necked pheasant, and gray partridge tend to inhabit a mixture of grasslands, frequently interspersed with agricultural fields and/or shrubby habitats. Sage grouse also utilize open spaces, but tend to rely more on the semi-arid sagebrush plains in the eastern portion of the state. Chukar are a rare bird, which is also found in semi-arid, open areas, notably steep, rocky, areas in south-central Montana. Wild turkeys are locally abundant where they inhabit open forests intermixed with grasslands and agricultural areas. Within Montana, turkeys have expanded their range to include more of eastern Montana as well. Shrubland species are known to be sensitive to habitat changes and have concentrated

breeding sites (leks), therefore developments within these habitats could affect these species.

- Birds of Prey – Birds of prey include kites, hawks (including eagles and falcons), osprey, and owls. In Montana, there are 34 species that make up this group of birds (Lenard et al. 2003). A number of birds of prey are widely distributed throughout the state, including the red-tailed hawk, American kestrel, prairie falcon, Northern harrier, and golden eagle. Species associated with open country including prairies and broad open valleys include ferruginous hawk, Northern harrier, rough-legged hawk, American kestrel, gyrfalcon, golden eagle, short-eared owl, and burrowing owl. Birds of prey most often associated with open timber or woodland include red-tailed hawk, sharp-shinned hawk, merlin, turkey vulture, flammulated owl, great-horned owl, and northern saw-whet owl. Species frequently found in relatively dense forest include Cooper's hawk, northern goshawk, and boreal owl. Several owl species require a combination of open country with some trees for roosts, nests, and perches. A number of birds of prey are often associated with nearby open water, including lakes and large rivers. These species include osprey, bald eagle, and peregrine falcon.
- Waterfowl – Waterfowl include ducks, geese, and swans. There are three swan species (including one introduced species, mute swan), five goose species, and 29 duck species (Lenard et al. 2003). Waterfowl are closely associated with wetlands, riparian areas, and open water. Many species, particularly geese and dabbling ducks, frequently forage in upland areas, particularly agricultural areas where they consume waste grain and green plants. Some waterfowl are habitat generalists and use an array of available bodies of water, while others are habitat specialists and only use specific habitats such as flat water, prairie potholes, or high gradient streams. Many of the waterfowl species found in Montana spend the nesting season in the state and migrate south during the winter. A smaller set of waterfowl is commonly seen in Montana during their spring and fall migrations between northern nesting grounds and southerly wintering grounds, but do not spend appreciable time in the state.
- Gulls, Waders, and Fish-Eating birds – This group includes pelicans, cormorants, herons, bitterns, rails, plovers, sandpipers, American avocets, stilts, gulls, terns, and cranes. Like many of the waterfowl species previously discussed, many of these species are associated with wetlands, riparian areas, and open water. Some, like gulls, terns, great blue herons, and double-crested cormorants, are colony nesters, and disruption and disturbance at these sites is expected to have a greater effect on these species than several other species. Several others, such

as rails, cranes, and phalaropes, are non-colonial breeders that nest in riparian areas, shorelines, and wetlands. Also like many of the waterfowl species, disturbances near shores, wetlands, and within riparian areas are most likely to negatively affect this group.

- Woodpeckers and Other Cavity-Nesting Birds – Several species of woodpeckers (primary cavity nesters) and secondary cavity-nesting birds occur in Montana. These species tend to rely on snags and snag recruits within the forested portions of the state. Loss of snags and snag recruits to firewood gathering and timber harvesting has the greatest potential impact to this group of birds.
- Songbirds – There are approximately 111 species of songbirds in Montana (Lenard et al. 2003). Many of these species breed in Montana during spring and summer months and migrate southward to Central and South America to spend the winter months. This group includes sparrows, vireos, warblers, and flycatchers. Populations of many of these bird species have been declining due primarily to habitat loss and habitat fragmentation. Roads, development, and other human disturbance have bisected large patches of forested habitats into smaller fragments with greater amounts of edge habitats. Many species of songbirds are associated with riparian habitats, thus fragmentation or loss of riparian areas will have a greater impact on this group of birds.

While considerable attention has been paid to the fragmentation of forested habitats and the subsequent declines to forested interior bird species, grassland/shrubland and savannah songbirds have probably seen more precipitous declines in recent past. Grassland birds show the most consistent declines of any group of birds monitored by the Breeding Bird Survey. Factors responsible for these declines include the loss of suitable habitats as well as an increased mowing of the remaining grasslands for hay production.

- Reptiles and Amphibians – There are 12 native and 1 introduced amphibian species that inhabit Montana. These include three species of salamander, four toads, and five frog species. Bullfrogs have been introduced in Montana prior to 1968 and are presently documented across appreciable portions of the state. Amphibians are usually associated with moist habitats, many are aquatic or semi-aquatic, and all breed in water. Some are common and widely distributed, and others are quite restricted in range. Several species are commonly found in nearly all types of uplands near water sources, including forests, grasslands and prairies, alpine meadows, and sagebrush flats. Several species are somewhat rare in Montana or their populations are declining (including several on the species of concern list).

Reptiles include turtles, snakes, and lizards. There are 3 turtle species, 4 species of lizards, and 10 snake species in Montana. Some of these are common and widely distributed (painted turtle, Western rattlesnake, Western terrestrial garter snake), and some have very specialized habitats or are quite restricted in range in Montana (including several that are on species of concern list).

- Sensitive, Threatened or Endangered Wildlife Species – The Montana Natural Heritage Program (MNHP) lists 89 terrestrial vertebrate species of special concern including threatened and endangered species (Carlson 2003). This list includes listed 5 amphibians, 9 reptiles, 48 birds, and 27 mammals (Carlson 2003). Listed species includes taxa that are rare, endemic, disjunct, threatened, or endangered throughout their range or in Montana, vulnerable to extirpation from Montana, or in need of further research. The list also encompasses species that have a special designation by organizations or land management agencies in Montana, including: Bureau of Land Management Special Status and Watch species; U.S. Forest Service Sensitive and Watch species; U.S. Fish and Wildlife Service Threatened, Endangered and Candidate species.

Of these 89 species, 3 are classified as Endangered (whooping crane, black-footed ferret, and the interior least tern) and 5 are classified as Threatened (bald eagle, piping plover, Canada lynx, grizzly bear, gray wolf) under the Endangered Species Act. The black-tailed prairie dog and the Yellow-billed cuckoo are candidates for listing (USFWS 2003).

- Whooping Crane – The whooping crane is listed as endangered by USFWS. Birds from this population migrate through Montana and the Dakotas in the fall from August to October, and in the spring from April to June. This species has been documented at several locations in eastern Montana and near wetlands in the Yellowstone Plateau area (USFWS 1994, Meine and Archibald 1996). While migrating, whooping cranes roost standing in the shallow water of marshes, flooded crop fields, artificial ponds, reservoirs and rivers. Wetlands surrounded by tall trees or other visual obstructions, or marked with dense vegetation are not used; whooping cranes select sites with wide, open panoramas. Sites must also be isolated from human disturbances. During migration cranes eat aquatic animals, plant tubers, roots and waste grain in crop fields.
- Black-footed Ferret – The USFWS lists the black-footed ferret as a federally endangered species. Black-footed ferrets once occupied a majority of the semiarid grasslands of the Great Plains. Populations suffered declines due to the eradication of prairie dog colonies. Black-

footed ferrets have been reintroduced into a few areas near Malta in northeastern Montana. Black-footed ferrets are nocturnal predators that inhabit grassland habitats and depend on prairie dogs for food.

- Interior Least Tern – In Montana, interior least terns breed on flat, sparsely vegetated to barren sand and gravel bars associated with the Missouri and Yellowstone River systems. Open, wide river channels and lake or pothole shorelines are characteristics of preferred nesting habitat in the state. Shallow depressions for nests are usually placed high on the sandbars away from waters edge to avoid high water flows early in the year. Interior populations of the least tern winter along the Gulf of Mexico and on Caribbean islands.
- Bald Eagle – The bald eagle is listed as threatened by the USFWS. Bald eagles are diurnal raptors associated with significant bodies of water, such as rivers, lakes, and coastal zones. The bald eagle diet consists primarily of fish and waterfowl, but includes carrion, mammals, and items taken from other birds of prey. Preferred nest-stand characteristics include large emergent trees that are within site distances (typically less than 1 mile) of lakes and rivers and screened from disturbance by vegetation.
- Piping Plover – Piping plovers breed in three geographic regions: the Atlantic Coast, the Northern Great Plains, and the Great Lakes. The Great Plains population is listed as threatened by USFWS. The Great Plains population spends fall to early spring along coastal areas in the Gulf of Mexico. Segments of this population breed along rivers and lakes in Montana. Suitable habitat in Montana includes sand, gravel, and alkaline shores along lakes and rivers (Gaines and Ryan 1988, Lenard et al. 2003). Breeding sites are typically composed of sand, pebbles or gravel on exposed beaches. Riverine habitats, particularly river islands and sandbars are also important, including along the Missouri River. Plovers tend to be site specific, returning to the same breeding areas year after year.
- Lynx – The threatened lynx is distributed throughout western and central Montana. The distribution and abundance of lynx is closely associated with snowshoe hares, their primary prey. Primary lynx habitats are subalpine-fir types with abundant coarse woody debris for denning; however, lynx will use a mix of species compositions (subalpine fir, lodgepole pine, Douglas-fir, grand fir, and western larch) as well as lodgepole pine stands (Ruediger et al, 2000). Lynx generally forage in young coniferous forests with plentiful snowshoe hares. Mature, densely forested cover facilitates movement and provides habitats for red squirrels, which are an alternative prey source for lynx.

Canada lynx are generally found between 4,000 to 7,000 feet in elevation in western Montana and between 5,500-8,000 feet on the east side of the Continental Divide (Ruediger et al, 2000).

- Grizzly Bear – Grizzly bears, listed as threatened, typically inhabit mountainous, forested areas in Montana. Preferred grizzly bear habitats are meadows, riparian zones, avalanche chutes, rockslides, subalpine forests, alpine meadows, and big game winter ranges, all of which provide seasonal food sources (USFWS 1993). The Grizzly Bear Recovery Plan identified 4 recovery areas within Montana, including the North Continental Divide, Cabinet/Yaak, Yellowstone, and Selway/Bitterroot Recovery Zones (USFWS 1993). Grizzlies are occasionally recorded in other areas but are usually thought to be transients. Disturbance is a major influence on effectiveness of habitat for grizzly bears; today grizzlies remain largely in large tracts of relatively undisturbed land. Roads, logging, mining, human settlement, grazing, and recreation could negatively impact grizzly bears, with roads and associated human disturbance likely providing the biggest threat to grizzly bear habitats (Mace et al. 1996, Mace and Waller 1997).
- Gray Wolf – Wolves in Montana were extirpated by the 1940s, but expanded their range from Canada back into Montana beginning in the 1970s. Now, wolves are breeding in several locations within western and central Montana and have recently been down-listed to Threatened by the USFWS. The Northern Rocky Mountain Wolf Recovery Plan defines 3 recovery areas for the gray wolf, including the Northwestern Montana and Yellowstone Recovery areas within Montana (USFWS 1987). Wolves continue to expand their range and packs from the Central Idaho recovery area now reside in Montana as well. Wolves met the biological requirements for recovery in the northern Rockies in 2002 (USFWS et al. 2003). Conservation and management plans for Idaho, Montana, and Wyoming are needed prior to federal de-listing. Montana Fish, Wildlife, and Parks (FWP) recently completed the Final Environmental Impact Statement for the Gray Wolf Conservation and Management Plan in which FWP recommends that the State of Montana adopt a wolf conservation and management plan (Montana FWP 2003).

Wolves are a wide-ranging species whose habitat contains adequate vulnerable prey and minimal human disturbance. Primary prey species in Montana are white-tailed deer, elk, moose, and mule deer. Typically, wolves in Montana den in late April. Wolves are most vulnerable to human disturbance at den and rendezvous sites. Wolves choose elevated areas in gentle terrain near a water source (valley bottoms),

close to meadows or other openings, and near big game wintering areas for dens and rendezvous sites.

- Black-tailed Prairie Dog – The black-tailed prairie dog, currently listed as a candidate species, inhabits grasslands and sagebrush semi-desert areas in the Dakotas, Nebraska, Kansas, Oklahoma, Texas, Montana, Wyoming, Colorado, New Mexico, Alberta and Saskatchewan. They tend to occupy the lower elevation plains where they develop extensive colonies of interconnected burrows systems (Foresman 2001). Black-tailed prairie dogs are strictly herbaceous feeding on a variety of plant materials, favoring green, perennial grasses and forbs.
- Yellow-Billed Cuckoo – Populations of yellow-billed cuckoos west of the Continental Divide are currently listed as a candidate species (Carlson 2003). Yellow-billed cuckoos inhabit mature deciduous riparian forests (especially cottonwood) with a closed canopy, and will also use deciduous shrubs (e.g., willow, alder), but only if tall trees are present in the vicinity (Montana Partners in Flight 2000). Water, particularly large, slow moving stream or ponds and lakes, is usually present at most nest territories.

3.3.4.1 Species of Special Concern

The occurrence of species of special concern by Land Office region are shown in Table 3-22.. The Central Land Office supports the greatest diversity of wildlife species and also has the most species of special concern. The administrative region blends the major habitat groups from both eastern and western portions of the state, thereby combining habitats from each and potentially supporting species found in much of the state.

Table 3-22 Status and distribution of species of special concern by land office area (after State Forest Land Management Plan [updated], Final EIS, Montana DNRC 1996).

	DNRC LAND OFFICES						Statewide
	NWLO	SWLO	CLO	NELO	SLO	ELO	TOTAL
Rare Throughout Their Worldwide Range	2	2	5	6	3	4	6
Rare Within Montana	55	55	71	62	63	52	89
Federally Listed as Endangered Under the ESA	0	0	2	3	2	2	3
Federal Listed as Threatened Under the ESA	4	4	5	3	3	2	5
Possibly Appropriate for Federal Listing Under the ESA	1	1	2	2	2	2	2
Listed as Sensitive by USFS Based on Evidence of Current or Predicted Downward Trends in Populations or Habitat capability Sufficient to Reduce Existing Distributions	17	17	19	13	16	11	23
Total Number of Species of Special Concern (All Categories) in Each Land Office	55	55	71	62	63	52	89

- Stewardship Patterns – Government managed lands comprise approximately 35% of Montana, with roughly 29% under federal and 6% under state or local governmental jurisdiction (Refer to Table 2- 1 in Chapter 2). Federal ownership in Montana is dominated by USFS administered lands (18% of state), which are predominantly in western Montana. Private lands represent an estimated 59% of Montana; these private lands are in higher concentrations in the eastern part of the state where they are intermixed with lands managed by the BLM (9% of the state) and DNRC (Redmond et al. 1998). Within broad categories, public management of forested and unvegetated (rock, snow, badlands, barren, etc) land cover classes is well represented within the state. Public management of shrub and grassland categories, however, is not nearly as well represented, with considerable amounts of each of these classes

occurring on private ownership (Table 3-23). Roughly 5.5% of the land surface in Montana could be subject to management under this plan. In general, DNRC directly or indirectly plays a role in managing most habitat types that exist in the state of Montana and by being scattered across the state, a wide spectrum of habitat types and geography could be affected under this plan. Many of these parcels are however, intermingled with a variety of ownership, and therefore the wildlife that use the state sections are more likely to need both the state parcel and these adjacent ownerships to meet life requirements.

- Following general statewide trends in habitat groups, distribution of habitats varies widely between DNRC Land Offices (Table 3-24). Naturally, wildlife species that depend upon these habitats also follow these trends.

Table 3-23. Acreages in Land Use/Land Cover classes for DNRC Trust Lands by Land Office and percentage of that land use/land cover type within the land office boundary represented on state Trust Lands. Data derived from early 1990's Landsat TM imagery (National Land Cover Data for Montana-USGS).

	NWLO		SWLO		CLO		SLO		ELO		NELO	
Open Water	1,309	0%	711	2%	4,221	2%	886	2%	3,426	5%	4,768	1%
	10	0%	1	0%	16	0%	0	0%	0	0%	0	0%
Low Intensity Residential	50	1%	22	0%	161	1%	43	0%	0	0%	27	0%
High Intensity Residential	0	0%	5	0%	11	3%	0	0%	0	0%	0	0%
Commercial/Industrial/Transportation	493	2%	220	2%	924	2%	204	1%	371	3%	1,110	5%
Bare Rock/Sand/Clay	253	0%	44	0%	580	0%	121	0%	3,160	7%	5,191	5%
Quarries/Gravel Pits/Gravel	0	0%	17	0%	98	3%	1,060	20%	74	1%	147	4%
Transitional – sparsely vegetated	4,031	2%	613	1%	69	0%	0	0%	0	0%	3	0%
Deciduous Forest	1,636	7%	735	5%	6,443	2%	2,896	2%	9,902	5%	10,700	4%
Evergreen Forest	260,598	4%	132,596	3%	97,209	2%	30,408	2%	38,790	5%	48,376	4%
Mixed Forest	59	1%	47	1%	322	3%	134	3%	606	3%	448	3%
Shrubland	17,640	3%	28,393	4%	175,001	8%	41,983	4%	117,202	7%	117,397	6%
Orchards/Vineyards/Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Grasslands/Herbaceous	25,459	3%	62,650	5%	792,884	9%	271,205	5%	691,094	7%	1,324,760	9%
Pasture/Hay	1,062	0%	5,477	2%	29,085	4%	1,605	1%	6,522	2%	17,517	4%
Row Crops	0	0%	19	1%	1,233	2%	237	0%	603	2%	1,706	3%
Small Grains	478	0%	234	0%	106,553	4%	16,602	2%	29,465	3%	242,068	5%
Fallow	176	1%	7	0%	31,724	3%	13,828	3%	61,224	4%	225,753	5%
Urban/Recreational Grasses	16	2%	33	1%	138	1%	11	0%	0	0%	3	0%
Woody Wetlands	1,082	5%	1,233	3%	4,780	4%	436	2%	2,747	5%	1,492	2%
Emergent Herbaceous Wetlands	53	1%	528	3%	3,151	5%	399	2%	563	4%	1,587	5%

Table 3-24. Number of Montana wildlife species (omitting accidental bird species) using each of nine general habitats for at least a portion of their seasonal habitat needs within the boundaries of each DNRC land office area (after Montana State Forest Land Management Plan, Final EIS, Montana DNRC 1996).

General Habitat	NWLO	SWLO	CLO	NELO	SLO	ELO	Statewide
Rivers	91	81	81	82	78	70	98
Lakes	100	90	94	96	92	85	113
Wetland or Riparian	280	274	286	279	276	252	318
Alpine	72	73	77	10	9	8	74
Forest	157	158	165	146	151	127	180
Savannah	77	76	79	83	77	79	93
Woodland	194	191	207	199	198	180	232
Shrubland	141	142	157	153	159	144	182
Grassland	205	212	225	223	223	211	256
Regional Totals	398	398	434	405	404	366	441

Habitats missing from this table are not represented on DNRC lands in that land office area. Note that because many species use more than one habitat, regional totals are less than simple sums.

- **Locally Important Habitats** – Although the TLMD manages a relatively small component within the landscape of Montana, a portion of these lands occur within locally important wildlife habitats and are affected by trust management activities. For example, grizzly bear recovery in the Northern Continental Divide ecosystem is dependent upon maintenance of female grizzly bears producing cubs in each of 23 bear management units (USFWS 1993). The Department manages 69 percent of the Stillwater Bear Management Unit. Grizzly bears could not be sustained in the Stillwater Unit without maintaining suitable habitat on these state forestlands.

Wildlife habitat on state lands may also be critical for populations that range over much larger areas. For example, the white-tailed deer herd in the Salish Mountains of Northwestern Montana summers on National Forest lands, but winters on approximately two thousand acres of state forest land west of Kalispell (C. Sime, Montana FWP, unpublished data). The survival of this herd of 3,000 deer may depend on suitable habitat being maintained on that parcel of state land.

Grassland and shrubland habitats may support breeding habitats for several grassland bird species. Grassland birds in North America have been exhibiting the most consistent decline of any group of birds monitored by the Breeding Bird Survey since established in 1966 (Sauer et al. 1995, Sauer et al. 2003). This decline nationally can be attributed to loss of habitat as

well as an increase in mowing grasslands for hay production (Montana Partners in Flight 2000). Although no comprehensive survey exists linking populations of any of these species to state lands, grasslands on state lands likely provide habitat for some of these bird species.

- **Economic Contributions – Wildlife on state lands also makes important contributions to the state's local and regional economy.** Montana Fish, Wildlife, and Parks regulates harvest of 55 species of wildlife that are hunted or trapped. Recreation opportunities associated with hunting and trapping these game and furbearer species represent a substantial annual economic contribution. In 2001, 229 thousand hunters spent \$238 million in the state while spending 2.4 million days hunting (US Fish and Wildlife Service and US Census Bureau 2003). Revenue from trapping is additive to this value.

Montana's diverse and abundant wildlife populations also attract large numbers of resident and nonresident visitors to wildlife-related activities. In 2001, 687 thousand people spent time in Montana viewing wildlife while spending \$350 million in the state (US Fish and Wildlife Service and US Census Bureau 2003). Viewing wildlife is projected to be the fastest growing wildlife-related activity in the United States (Bowker et al. 1999). The number of persons participating in wildlife viewing is expected to increase by 61% and the number of days devoted to wildlife observation is projected to increase by 97% (Bowker et al. 1999). Revenue from recreation use permits on school trust lands exceed \$400,000 on an annual basis.

- **Regulatory Framework for Wildlife Resources – In addition to license, easement, and lease requirements imposed by the REMB, a variety of jurisdictional responsibilities pertaining to wildlife resources exist.** Additional considerations for wildlife and their habitats are covered by overlapping federal and state authorities. Within the context of the proposed plan, authorities that have potential jurisdiction over activities are, but are not limited to, those that are included herein. Endangered and Threatened species are protected under the Endangered Species Act which is enforced by the US Fish and Wildlife Service. The USFWS is also charged with protecting migratory birds as included in the Migratory Bird Treaty Act. Montana Fish, Wildlife, and Parks oversees much of the remaining wildlife species, including game animals, game birds, waterfowl, fur-bearing animals, as well as most nongame species. On all state lands, including those lands managed under this plan, the state Land Board is directed to manage the lands under the multiple-use management concept (77-1-203, MCA), which includes considerations for wildlife species and their habitats. Under concurrent consideration within DNRC is the Habitat Conservation Plan being prepared by the Forest Management Bureau. The objective of this plan was described earlier in this Chapter.

3.3.4.2 Wildlife by Land Office

- **Northwestern Land Office** – Dominant vegetation communities are alpine, spruce-fir forest, cedar-hemlock forest, montane seral forest, grasslands, and riparian communities. The largest habitat type in the northwestern land office is coniferous forest. As such, many of the species relying on forested environments are found within this land office. Some shrubland and grassland habitats also exist within this land office, and those species using some of these habitats are also represented, but to likely a lesser degree than those using the forested environments. Riparian habitats are also present within the land office and, despite the relatively small acreage both at the land office and state levels, play an important role in maintaining those species that use these habitats.
- The northwestern land office manages appreciable amounts of land within the North Continental Divide and Cabinet/Yaak Grizzly Bear Ecosystems. Extensive Canada lynx habitat exists in the higher areas and many pairs of bald eagles nest in the land office area. The land office also contains the Northwestern Montana gray wolf recovery area, where in 2002 at least 62 adult and 43 pups formed at least 11 breeding packs. Yellow-billed cuckoo habitat also exists within the land office area, though no recent observations have been documented. Habitat for most of the big game and carnivore species also exists, along with habitat for many of the small mammals associated with forests, riparian and wetland habitats, and subalpine habitats. Habitat also exists for a forested grouse, turkeys, pheasants, sharp-tailed grouse, several species of raptors and owls, waterfowl, many of the woodpeckers, resident and migratory songbirds, plus several amphibians and reptiles.
- **Southwestern Land Office** – Within the boundaries of the southwestern land office is a mixture of montane forest, grasslands, and shrub habitats. Grasslands and shrub lands are increasingly more common within this land office. The four unique vegetation communities in this province include coniferous forests, sagebrush steppe, grasslands, and riparian areas. Canada lynx habitat exists within this land office, along with many nesting pairs of bald eagles. Packs of gray wolves are also expanding their ranges within this land office. Portions of this land office also fall within the North Continental Divide and Bitterroot Grizzly Bear Recovery Zones. Habitat for yellow-billed cuckoos occurs along riparian features within this land office area. Habitat for all the big game species, except bison, exists within this land office area. Habitat for many of the carnivores also exists along with habitat for the small mammals associated with forests, riparian and wetland habitats, subalpine habitats, as well as the species that use grassland plains and shrub steppe habitats. Habitat also exists for forested and shrubland grouse, turkeys, several species of raptors and owls,

waterfowl, many of the woodpeckers, resident and migratory songbirds, plus several amphibians and reptiles. With a greater representation of open, grassland and shrubland types, increases in those species utilizing these habitats are seen within this land office area.

- Central Land Office – The central land office is similar in vegetation composition to the southwestern land office and contains a mixture of montane forest, grasslands, and shrub habitats. Grasslands, shrub lands, and agricultural uses are increasingly more common within this land office area. The four unique vegetation communities in this province include coniferous forests, sagebrush steppe, grasslands, and riparian area. Also like the southwestern land office, this land office area supports habitat for Canada lynx and gray wolves. Bald eagles are also present, commonly nesting along major drainages within the boundaries of this land office area. Grizzly bear habitat within the Yellowstone Grizzly Bear Recovery Zone exists within this land office area. Habitat for whooping cranes and black-tailed prairie dogs are found within this land office area. Most species of big game and carnivores can be found within this land office area. As indicated earlier, this land office blends western, coniferous forests with eastern plains habitats, and as such you start seeing species reaching the edges of their state ranges within this land office. Many of the forested species covered in the northwestern and southwestern land offices also exists within this land office, with several disappearing as to the east, within the administrative boundaries. Likewise species associated with the open grassland plains and shrub steppe habitats become more numerous with the greater representation of these habitats in the more eastern portions of this land office. The diversity of habitats within the land office caused by the juxtaposition of these major habitat groups probably supports the greatest diversity of animal species, including the broad groups of mammals, birds, amphibians, and reptiles.
- Northeastern Land Office – The grasslands of central and eastern Montana comprise the largest vegetation province in Montana. The major vegetation community type in this area is mixed-grass prairie. Vast areas within this land office area are in grassland, shrubland, and agricultural uses. Meanwhile forested environments are relatively limited in comparison to the other land offices. With the increased representation of open grassland and shrub steppe habitats within this land office, species associated with these habitat types are more common while those associated with forested habitats are less common than in other land office areas. Bald eagles nest within this land office area, mainly along the Missouri River, its tributaries, and around major water bodies. Limited Canada lynx habitat exists within the bounds of this land office at some of the higher elevations. Black-footed ferrets and piping plovers are only found within the boundaries of this land office. Riparian areas within the

land office provides habitat for least terns. Habitat for whooping cranes and black-tailed prairie dogs also exists within this land office area. Big game species that are found within the boundaries of this land office include both deer species, elk (within coniferous habitats along major drainages), bighorn sheep, antelope, mountain lions, and in limited numbers along the western edges, moose, black bears, and mountain goats. Several carnivores and small mammals associated with riparian habitats exist within this land office area, but those species associated with coniferous habitats are largely absent from the land office area except for portions of the westernmost edge of the land office. Forested upland game birds are also largely absent from this land office area, while habitat for shrubland grouse is more widespread. In general, the transition towards increasingly open habitats with less forested types carries over to a myriad of wildlife species, including nongame mammals, resident and migrant songbirds, raptors, and owls. Several reptiles and amphibians (namely lizards and toads) are found in this land office.

- Southern Land Office – The grasslands of central and eastern Montana comprise the largest vegetation province in Montana. Additionally, the Temperate Desert occupies a small area in south-central Montana. The four vegetation community types in this area include coniferous forests, semi-arid grasslands, shrub lands, and riparian communities. Vast areas within this land office are in grassland types with smaller components of shrubland and forests. With the increased representation of open grassland and shrub steppe habitats within this land office area, there are more species that use these open habitats and fewer of the species that rely on the forested habitats of western Montana. Bald eagles nest within the land office boundaries, mainly along the Yellowstone River and around major water bodies. Limited Canada lynx habitat exists at some of the higher elevations. Some grizzly bear and gray wolf habitat exists, mostly within the Yellowstone Ecosystem. Habitat for whooping cranes and black-tailed prairie dogs exists within this land office area. Big game species that are found in this land office area include both deer species, elk (within coniferous habitats along major drainages), bighorn sheep, antelope, mountain lions, black bears, and in limited numbers along the western edge of the land office, moose and mountain goats. Several carnivores associated with riparian habitats exist within this land office area, but habitat for those carnivores associated with coniferous habitats is starting yield to more open types, thereby reducing the presence of these forested species. Likewise, habitat for forested upland game birds are also being replaced by habitat for open grassland types, which is habitat for the shrubland grouse species. In general, the transition towards increasingly open habitats with less forested types carries over to a myriad of wildlife species, including nongame mammals, resident and migrant songbirds,

raptors, and owls. Several reptiles and amphibians (namely lizards and toads) are found in this land office.

- Eastern Land Office – The grasslands of eastern Montana comprise the largest vegetation province in Montana. The major vegetation community type in this area is mixed-grass prairie with a component of shrub lands. Vast areas within this land office are in grassland, shrubland, and agricultural uses. Meanwhile forested environments are relatively limited in comparison to the other land offices. Species that use open habitats are more widespread with the increased representation of open grassland and shrub steppe habitats within this land office, and species that rely on the forested habitats of western Montana are less common. Bald eagles nest within this land office area, mainly along the Yellowstone River, its tributaries, and around major water bodies. Riparian areas within the land office area provides habitat for least terns. Habitat for whooping cranes and black-tailed prairie dogs exists within the land office area. Big game species that are found in this land office area include both deer species, elk (within coniferous habitats along major drainages), bighorn sheep, antelope, and mountain lions. Several carnivores and small mammals associated with riparian habitats exist within this land office area. The swift fox is only found within the eastern land office. Forested upland game birds are also largely absent from this land office, while habitat for shrubland grouse is more widespread. In general, the species that rely upon forested environments are largely limited within this land office while those species using open habitats are more abundant.

3.3.5 Vegetation

3.3.5.1 General Statewide Overview

Vegetation communities of Montana are diverse due to the state's wide variety of climatic and geomorphic influences. Much of western Montana is strongly characterized by forest vegetation and grassland or sagebrush steppe in many intermontane basins. Six distinct ecological forest type groups have been identified for western Montana. These include:

- ponderosa pine forests
- western larch/Douglas fir forests
- western larch/Douglas fir, western white pine, and mixed conifer forests
- lodgepole pine forests
- Douglas fir forests
- spruce, spruce/fir, and western red-cedar/grand fir forests.

Forest types by land office are summarized in Table 3-25.

Table 3-25. Forest Area by Forest Type and Land Office (thousands of acres)

TYPE	Land Office				
	NWLO	SWLO	CLO	NELO/ SLO/ELO	TOTAL
	M Acres	M Acres	M Acres	M Acres	M Acres
Douglas-Fir	54.1	63.0	72.8	7.3	197.2
Douglas-Fir/Larch	85.7	23.9	-	-	109.6
Western Hemlock	0.3	-	-	-	0.3
Ponderosa Pine	20.4	34.5	14.6	149.6	219.1
Western White Pine	0.1	-	-	-	0.1
Lodgepole Pine	25.3	15.2	10.9	2.4	53.9
Larch	22.7	2.7	-	-	25.4
Western Red Cedar	3.8	0.1	-	-	3.9
Limber Pine	-	-	1.2	0.2	1.4
Grand Fir	9.8	0.1	-	-	9.9
Spruce/Subalpine Fir	21.2	1.0	6.6	0.0	28.8
Spruce	22.8	1.4	0.1	-	24.2
Whitebark Pine	0.2	-	1.0	0.0	1.3
Mixed Conifer	11.8	0.7	0.7	0.5	13.7
Non-Commercial	2.8	0.8	0.4	0.2	4.2
Nonstocked	6.1	10.1	5.6	2.4	24.2
Other Hardwoods	0.3	0.0	0.0	0.1	0.5
Aspen	0.2	0.4	2.5	1.6	4.6
Cottonwood	0.7	0.8	0.4	2.8	4.7
TOTALS	228.2	154.6	116.9	167.1	726.8

Estimates based on DNRC Stand Inventory, 2003.

In contrast, much of eastern Montana is characterized by open grasslands. These grasslands include mixed-grass prairie dominated by wheatgrasses, needlegrasses, and grama species intermixed with a variety of forbs and pricklypear cactus and varying densities of sagebrush. They also include foothills-prairie ecological groups where grasses such as bluebunch and needle-and-thread are the dominate grasses and sagebrush is a common component. Not all of eastern Montana is open prairie, however, and in areas such as the Missouri and Powder River breaks, and the Wolf Mountains, eastern ponderosa pine forests are prevalent. More specific descriptions of vegetation types common to lands administered by the individual Land Offices are presented below. Issues regarding noxious weed occurrences follow.

3.3.5.2 Regional Overview

- Northwestern Land Office – Land administered by the Northwestern Land Office lies within Montana's Northern Rocky Mountain province. The most pronounced vegetative feature of this province is the distinct zones that form along altitudinal gradients. Dominant vegetation communities are alpine, spruce-fir forest, cedar-hemlock forest, montane seral forest, grasslands, and riparian communities.

Trees are largely absent in alpine communities. Vegetation communities occupy diverse environments such as exposed ridges, boulder fields, fell fields, broad moist basins, bogs, fens meadows, lower shrub communities and krumholz islands of conifer species.

The spruce-fir forest community is dense-to-open with a well-developed shrub and herbaceous layer (Kuchler 1964). Subalpine fir is characteristically dominant and found most frequently at higher elevations where it is more likely to establish in shade and in organic soils. (Peet 1993) White spruce, a taller and longer-lived species, is more tolerant of extreme conditions.

Cedar-hemlock forest communities contain tall, dense stands of fast-growing, shade-tolerant species (Kuchler 1964). Western hemlock clearly dominates the seedling and sapling strata of seral forests. Western redcedar may be more successful in drier areas (Peet 1993).

Three species, Douglas-fir, lodgepole pine and ponderosa pine form the mixed conifer community that are frequently found in areas cleared by large-scale disturbance such as fire, insects, disease, and mass wasting. Douglas-fir, lodgepole pine, or ponderosa pine may temporarily dominate seral stands depending upon local climate and geomorphic features. Other common species in these communities include western larch, grand fir, and western white pine.

Two distinct grassland habitats occur in Northwestern Montana. At higher elevations, meadow and grassland communities occur in both excessively wet and excessively dry environments. Grasslands also occupy low elevation valley bottoms of northwestern Montana (Kuchler 1964).

Riparian forest communities occur adjacent to rivers and streams. Despite disturbance from flooding, changes in stream channels, and sedimentation, relatively stable plant communities often form. Dominant tree species include black cottonwood and paper birch.

- Southwestern Land Office – The Southwestern Land Office contains a mixture of montane forest, grasslands, and shrub habitats typical of the Middle Rocky Mountain province. Four unique vegetation communities occur in this province. They are coniferous forests, sagebrush steppe, grasslands, and riparian. The alpine community is less extensive than in northwestern Montana though it is not appreciably different where it occurs. Spruce-fir forest communities in the Southwestern Land Office are similar to the spruce-fir forests occurring in the Northwestern Land Office. Grand fir communities replace cedar-hemlock forests south of Glacier National Park though grand fir does not occur at the south end of this region. Grand fir is found on valley bottoms, benches, and slopes between 2,400 and 5,000 feet elevation. Associated coniferous species include Douglas-fir, lodgepole pine, western white pine, ponderosa pine, Pacific yew, and western larch. Douglas-fir dominates many seral forest communities. Douglas-fir occurs at somewhat higher elevations than in the Northwestern Land Office and is frequently associated with grasses. It occurs on well-drained mountain slopes and in valleys between 2,500 and 7,500 feet elevation. Lodgepole pine is an early seral species in clear-cut, or recently burned areas, especially those that develop into Douglas-fir or spruce-fir forests. It is usually the first conifer to grow except in the driest areas (Arno *et al.* 1985). Without disturbance, lodgepole pine does not regenerate, and is replaced by more shade tolerant and longer-lived species. In well-drained areas where repeated fires may eliminate other conifer seed sources, lodgepole pine can appear as a climax.
- Ponderosa pine forest communities endure in dry areas at a slightly higher elevation than grasslands. It is a climax species in areas with a regular low-intensity fire regime.

The Shrub steppe community occupies large areas in southwestern Montana and consists of a mosaic of shrub lands and grasslands. In some cases, it covers mountain slopes where conditions are unsuitable for forests. The most common communities contain sagebrush species such as big sage, black sage, and birdfoot sagebrush.

Human activities are most apparent in the shrub steppe community. Land has been converted from grasslands and shrub lands into agricultural or range lands. In many areas, dry forest types have encroached into the shrub steppe. Grazing has facilitated the encroachment of woody species into dry grasslands as well as increased the density of shrubs by removing associated palatable native species. Domestic grazing on native rangeland has replaced many native grasses with exotic pasture grasses. Development has increased fragmentation of some native communities. In addition, grazing has replaced native grasses with pasture grasses and caused woody

species to encroach into previously open areas. Noxious weeds are common.

Riparian forest communities are widespread and adjacent to major rivers and streams at elevations below 6,000 feet. Black cottonwood is the dominant tree species. Other deciduous trees include cascade mountain ash, hawthorne, plum, and Rocky Mountain maple. Associated shrub species include willow, wolfberry, ground dogwood, and Wood's rose (Pfister et al. 1977).

- Central Land Office – The Central Land Office contains a mixture of montane forest, grasslands, and shrub habitats typical of the Middle Rocky Mountain and Yellowstone Plateau Vegetation Provinces. In the southern areas, soil moisture is inadequate to support forests and therefore grasslands and shrub lands predominate (McNab and Avers 1994). Four unique vegetation communities occur in this province. They are coniferous forests, sagebrush steppe, grasslands, and riparian. The alpine community is less extensive than in northwestern Montana and is not significantly different.

Spruce-fir forest communities in the Central Land Offices are similar to the Spruce-fir forests occurring in the Southwestern and Northwestern land offices. Other coniferous species include Douglas-fir, lodgepole pine, ponderosa pine, limber pine, and rocky mountain juniper.

Douglas-fir dominates many seral forest communities and is frequently associated with grassland/forest savannah. It occurs primarily on well-drained mountain slopes and along valley edges between 3,000 and 7,500 feet elevation.

Ponderosa pine forest communities endure in dry areas along foothills grassland fringes. It can function as a climax species in areas with a regular low-intensity fire regime.

Limber pine forests extend east from the Continental Divide into the foothills grassland and occupy some of the driest areas capable of supporting trees. They are also found on low-to-mid elevation dry, steep slopes.

At higher elevations, lodgepole pine is an early seral species in clear-cut, or recently burned areas, especially those that develop into Douglas-fir or spruce-fir forests. It is usually the first conifer to grow except in the driest areas (Arno *et al.* 1985). Without disturbance, lodgepole pine does not regenerate, and is replaced by more shade tolerant and longer-lived species.

In well-drained areas where repeated fires may eliminate other conifer seed sources, lodgepole pine can appear as a climax.

In many areas, land has been converted from grasslands into agricultural crop or pasture and dry forest types (Douglas-fir, ponderosa pine, and limber pine) have encroached into the foothill and valley grassland communities. Grazing has facilitated the encroachment of woody species into dry grasslands as well as increased the density of shrubs by removing associate palatable native species. Domestic grazing on native rangeland has also replaced many native grasses with exotic pasture grasses. Development has increased fragmentation intact native communities. Occurrences of noxious weeds are common in disturbed plant communities.

- Northeastern, Eastern and Southern Land Offices – The grasslands of central and eastern Montana comprise the largest vegetation province in Montana, extending from the Continental Divide in the west to the Poplar River in eastern Montana. The Temperate Desert province occupies a small area in south-central Montana and is occupied by unique vegetation communities similar to desert areas of Wyoming and Colorado. Three vegetation community types are found in this area. They include coniferous forests, mixed-grass prairie, and riparian communities. Alpine vegetation does not occur in this region.

Spruce-fir forests occur above 8,000 feet in the Pryor Mountains. Forests consisting of subalpine fir and Engelmann spruce occur only at the highest elevations throughout this province. Lodgepole pine is present on cool, moist, steep slopes and plateaus. These forests prevail in areas with a regular fire disturbance cycle. They may form large forests or appear as islands within other forests (Despain 1973). They typically occur on gentle slopes with well-drained soils.

Douglas-fir is found on warmer, drier sites at lower elevations. Additional tree species present in this forest type include lodgepole pine, ponderosa pine, and occasionally whitebark pine. All of these species are adapted to a regular fire regime and regenerate well following disturbance.

The eastern population of ponderosa pine is genetically distinct from that occurring on the west side of the Rocky Mountains (Kuchler 1964; Peet 1993). These forests occur on coarse stratified outcroppings of sandstone, scoria, or on rocky soils (Despain 1973). These forests are dry enough to burn regularly, and many old trees are resistant to frequent low intensity fires (Daubenmire 1943).

Juniper woodlands are found on relatively dry sites on sedimentary soils and breaks in central and south-central Montana. These woodlands have expanded in many areas in connection with grazing and in altered fire regimes (ABI 2001).

Shrub steppe communities occupy low hills and outwash plains of the Pryor Mountains. The terrain consists of gentle to moderately steep slopes, terraces, alluvial fans, outwash plains, toeslopes, drainages, wide alluvial valleys, highly eroded terrain, and badlands. Soil texture is predominantly silt and clay with surface gravels. Shrub cover is moderate, usually one to three feet tall, with a sparse understory of forbs and grasses.

Grassland communities occur in areas where environmental conditions are unsuitable for tree or shrub species. Windswept mesas, ridgetops, upper slopes, outwash plains, and foothills are typically dominated by grass species. These open grasslands are dense and contain scattered low-growing shrubs (Kuchler 1964).

In central and eastern Montana, thickets of boxelder, American ash, scrub oak, Russian olive, and plains cottonwood occur along streams, rivers, lakes, springs, and ponds. They occupy floodplains, terraces, fans, and woody draws.

The mixed-grass prairie is Montana's largest community type, covering central and eastern Montana, excluding the island mountain ranges of the Northeastern Land Office. Steep slopes bordering rivers create isolated badlands that occasionally interrupt the relatively flat, undulating plains. Elevations range from 2,000 to 4,000 feet. These hilly plains have little relief, often less than 200 feet. These short and open grasslands are often sparsely vegetated.

In extreme eastern Montana, the vegetation is influenced by increased precipitation, resulting in grasslands that are taller and more productive than those further west. This grassland represents an ecotone between the dry grasslands in the interior of Montana and the tall grass prairie region of the central United States.

Harsh environmental conditions limit the abundance and diversity of plants in this vegetation province. Poor soil drainage creates temporarily saturated surface horizons that dry completely between summer thunderstorms. This area contains a number of relatively unpalatable shrubs and is not browsed intensively by cattle. Exotic plants have invaded many stands especially where disturbed.

3.3.5.3 Noxious Weeds

Noxious weeds of Montana are listed at <http://agr.state.mt.us/programs/asd/noxweeds.shtml>. These species are aggressive and invasive plants able to withstand extreme environmental conditions and are often associated with negative ecological and economical impacts. Disturbed areas are most likely to be invaded by noxious weeds. Soil disturbance by vehicles, machinery, and heavy grazing creates ideal sites for weed seed germination; hence weed infestations are most pervasive in areas with numerous roads and/or trails. Noxious weeds can create widespread economic and environmental losses by displacing native species, decreasing wildlife habitat, reducing forage production, reducing recreational land value, reducing biodiversity, eliminating threatened and endangered plant species, altering normal ecological processes, and increasing stream sedimentation (Malone 2000).

Noxious weeds as designated by the State of Montana, are divided into four categories. Category one noxious weeds are exotic species, which are firmly established and widely spread throughout Montana. A well-known category one noxious weed is spotted knapweed, which first appeared in Missoula County in 1920. In the subsequent years, spotted knapweed has spread to all Montana Counties. Category two weeds are new invaders with limited distribution and density, which, if detected early enough, often makes eradication feasible. Category three includes those species known to occur in adjacent states and with potential for subsequent introduction. An example of a category three noxious weed is yellow starthistle, which is spreading across Washington and Idaho at about 25,000 acres per year, and thereby threatening much of southwestern Montana. Category three weeds have either not been detected in the state or may be found only in small, scattered, localized infestations. Watch weeds are known pests in nearby states and may be capable of rapid spread. The Montana Noxious Weed Advisory Council Additional will collect and review additional information on these species.

Category one weeds occupy approximately 8 million acres in Montana and are considered the single most serious threat to natural habitats. The Trust Land Division manages approximately 5.2 million acres in six areas and twelve unit offices. The total number of these acres infested by weeds is unknown, however based on a statewide infestation rate of 9 percent; it is projected that 450,000 acres are currently infested (Lacey 1987). Weeds with highest coverage in the state are spotted knapweed (3.8 million), Canada thistle (1.5 million), and leafy spurge (1 million). The estimated economic losses by leafy spurge and spotted knapweed to grazing lands and wildlands in the upper Great Plain is estimated at 130 million, and 42 million, respectively (Duncan 2001). DNRC requires all lessees to control any noxious weeds introduced by the lessee, or his activities, on Trust Lands in compliance with the Montana County Noxious Weed Management Act.

3.3.5.4 Plant Species of Special Concern

The Montana Natural Heritage Program (MNHP) maintains an inventory of animal species, plant species, plant communities, and biological features that are rare, endemic,

disjunct, threatened, or endangered throughout their range or in Montana; vulnerable to extirpation in Montana; or in need of further research. The USFWS maintains a list of threatened and endangered species, candidates for listing, and those proposed for listing. Federally listed threatened and endangered species have legal standing and must be addressed in proposed projects on federal lands. They also may impact proposed actions on state lands and private property. State listed species of special concern have no legal standing; however, it is suggested that efforts to identify and protect these species be undertaken, or that state agencies that have regulatory authority over programs that may impact these species include procedures to identify and protect them.

Appendix F contains names, and habitats of 85 rare plant species found on State Trust Lands. No endangered plant species occur in Montana, although two threatened species occur in Montana and on Trust Lands. Water howellii occurs in ponds and standing water of the Swan Valley within the Northwest Land Office. Ute ladies tresses are found in wet meadows, meandering swales of broad open valleys within the Southwest and Central Land Offices. One proposed threatened species, Spaulding's catchfly is not known to currently occur on State Trust Lands though appropriate habitat occurs within the Northwest Land Office. Each land office contains rare species unique to that region and a few species that occupy more than one region.

3.3.6 Air Quality

3.3.6.1 Introduction

This section describes the general air quality present throughout the State of Montana. The Montana Department of Environmental Quality (DEQ) has completed detailed reviews of air quality in the 19 non-attainment areas, as well as the rest of the state. Information presented in this section was derived from MT DEQ publications, as well as data gathered by the U.S. Environmental Protection Agency (EPA).

Air quality metrics fall into two categories, primary standards and secondary standards. Primary standards are designed to protect human health, including "sensitive" populations, such as people with asthma and emphysema, children, and senior citizens. Primary standards were designed for the immediate protection of public health, with an adequate margin of safety, regardless of cost. Secondary standards are designed to protect public welfare, including soils, water, crops, vegetation, buildings, property, animals, wildlife, weather, visibility, and other economic, aesthetic, and ecological values, as well as personal comfort and well-being. Secondary standards were established to protect the public from known or anticipated effects of air pollution. Montana has adopted additional state air quality standards. These Montana Ambient Air Quality Standards (MAAQS) establish statewide targets for acceptable amounts of ambient air pollutants to protect human health.

Criteria air pollutants were selected by EPA based on extensive scientific research showing the direct relationship between exposure to pollutants and their short- and long-term effects on human health and the environment. Federal and State standards have

been set for criteria pollutants, which include carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂, often indicated by the more general NO_x), sulfur Dioxide (SO₂), ozone (O₃), volatile organic compounds (VOC), particulate matter (PM₁₀ and PM_{2.5}), and visibility.

3.3.6.2 General Statewide Overview

Clean air is a basic natural resource essential for all living things. Air is also the transport pathway, via dry and wet deposition, through which emitted chemicals reach the biosphere and interact with natural ecosystems. For example, nitrogen species emitted by diverse sources such as automobiles and power plants is blown downwind and settles to the ground or is washed from the air by rain, effectively fertilizing remote regions and potentially altering the natural balance between species. Nitrogen and sulfur also combine with water in the atmosphere to form acids, which after falling to earth as “acid rain” tend to degrade the quality of forests, lakes and streams.

Clear air is a natural resource that various industries, including tourism, depend on. Visibility in National Parks and Monument and in State Forests is critical to their continued use by tourists and State residents alike. PM₁₀, particulate matter less than 10 microns in diameter, is a regulated pollutant that directly affects visibility. PM₁₀ and PM_{2.5} (diameters less than 2.5 microns) also affect basic health, as they are more easily ingested via the lungs. Nitrogen and sulfur compounds combine in the atmosphere with naturally occurring ammonia to form PM₁₀, in addition to their other more direct effects described above.

Since the 1960's, both State and Federal laws have been passed to protect air quality. Additionally, Montana allows any city or County to establish its own local air pollution control program. Seven counties currently operate local air pollution control programs that encompass the following communities: Billings, Butte, Great Falls, Helena, the northern Flathead Valley, Libby, and Missoula. These local air pollution control programs have jurisdiction over most pollution sources within their boundaries.

In general, the air quality in most of Montana is good due to the state's relatively low population density. There are however several areas in the State where Federal and/or State standards for criteria pollutants are not currently met. These areas are designated as “non-attainment areas”, since they do not attain air quality standards. Non-attainment areas can be either Federal non-attainment areas or State non-attainment areas, depending on whether the observed concentrations exceed the Federal or State standards. The EPA requires the States to develop State Implementation Plans (SIP) for any non-attainment areas, specifying what will be done to improve the air quality. After the measured concentrations have fallen back below the standard, the non-attainment area is re-designated a “maintenance area.”

As specified by the 1977 amendment to the 1963 Clean Air Act, Prevention of Significant Deterioration (PSD) area classification requirements let states plan for local land use. Each PSD classification differs in the amount of development it will allow.

Acceptable growth is estimated using computerized air dispersion modeling techniques to gauge the effects of current and potential pollution sources on surrounding areas. PSD regulations allow for three area classifications:

- Class I areas allow the smallest incremental growth and accommodate only a small degree of air quality deterioration
- Class II areas can accommodate normal, well-managed industrial growth
- Class III areas allow the largest increments of growth and provide for a larger amount of development than either Class I or Class II areas.

There are several Class I areas in the Montana. These are generally Tribal or Federal lands such as reservations, National Forests, National Monuments or Wilderness Areas, and are protected under the 1963 Clean Air Act. Important issues for Class I areas include deposition of sulfur and nitrogen species, as well as visibility impairment by PM_{10} .

The climate of Montana is as varied as the topography. Winter can be bitterly cold; although temperatures in January range from 11 to 35 °F (-11 to -2 °C), most places experience at least a week below 0 °F (-17 °C). The warmest temperatures are in July, when the statewide range is 64-88 °F (17-31 °C), though most places will record 90 °F (32 °C) a few times each summer. On summer nights, temperatures are typically 50-60 °F (10-15 °C). The parts of the state west of the Continental Divide are generally cooler than the southeast. Average annual precipitation is 15 inches, varying from 9.69 in the eastern plain to more than 100 inches in the rainiest parts of the mountainous west. Summers are typically dry, and winters across the State features snow. May-July is the rainiest part of the year.

3.3.6.3 Regional Overview

- Northwestern Land Office – Regions in and around Columbia Falls, Thompson Falls, Whitefish, Libby and Kalispell are all State PM_{10} non-attainment regions. Additionally, regions in and around Polson and Ronan are Federal PM_{10} non-attainment areas. Kalispell is also a State carbon monoxide non-attainment area.

There are four Federal Class I areas in the Northwestern Land Office region: Cabinet Mountains Wilderness and Mission Mountains Wilderness, and parts of Glacier National Park, and Bob Marshall Wilderness. Additionally, the Flathead Reservation has been declared a Class I area.

The Northwestern Land Office region contains two major existing sources of air pollution. The Columbia Falls Aluminum plant in Flathead County is a major source of carbon monoxide, PM_{10} , and sulfur dioxide. Stimson Lumber in Libby, Lincoln County, is a major source of carbon monoxide.

- Southwestern Land Office – Regions in and around Missoula and Butte are State PM10 non-attainment regions. Missoula is also a State carbon monoxide non-attainment area.

The Southwestern Land Office region contains several Class I areas: Selway-Bitterroot Wilderness, Anaconda-Pintlar Wilderness, Scapegoat Wilderness, and parts of Bob Marshall Wilderness.

The Stone Container paperboard mill in Missoula (Missoula County) is a source of carbon monoxide and volatile organic compounds.

- Central Land Office – The region in and around Great Falls was a State carbon monoxide non-attainment area, and is currently a maintenance area. East Helena is a State lead non-attainment area and a State sulfur dioxide non-attainment area.

The CLO contains several Class I areas: Parts of Glacier National Park, and Bob Marshall Wilderness, as well as Gates of the Mountains Wilderness, Red Rock Lakes Wilderness, and Yellowstone National Park.

The Asarco smelter in East Helena (Lewis and Clark County) was the State's largest source of airborne sulfur dioxide. Plant operations were temporarily suspended in April 2001, but the plant may start up again. Montana Refining, a petroleum refinery in Great Falls in Cascade County, is a source of sulfur dioxide.

- Northeastern, Eastern and Southern Land Offices – The region in and around Lame Deer in the Southern Land Office is a Federal PM10 non-attainment area. Billings was a State carbon monoxide non-attainment area, and is currently a maintenance area. Billings and Laurel are also State sulfur dioxide non-attainment areas.

The Northeastern Land Office region contains the UL Bend Wilderness Class I area, as well as Medicine Lake Wilderness Class I area. Additionally, the Northern Cheyenne Reservation in the Eastern Land Office and the Fort Peck Reservation in the Northeastern Land Office have been classified as a Class I area.

The Eastern Land Office region contains several existing point sources of air pollution. In Richland County, MDU operates the Lewis & Clark station, a source of sulfur dioxide and a moderate source of nitrogen dioxide. In Rosebud County, there are four existing point sources. Western Energy's Rosebud mine is a source of PM₁₀. Colstrip Energy operates their Rosebud plant, a source of sulfur dioxide. Two plants in

Colstrip are sources of carbon monoxide, nitrogen dioxide (the State's largest), and sulfur dioxide.

In Yellowstone County in the Southern Land Office region, there are four existing point sources. Conoco, Cenex and Exxon each have refineries that are sources of sulfur dioxide and volatile organic compounds. Montana Sulfur & Chemical operates a plant in Billings that is a source of sulfur dioxide.

3.4 DESCRIPITON OF RELEVANT RESOURCES RELATED TO THE CULTURAL AESTHETIC AND SOCIAL ENVIRONMENT

3.4.1 Noise

3.4.1.1 Introduction

Noise is typically defined as "unwanted sound". The noise levels heard by a human or an animal are dependent on several variables including distance between the source and receiver, altitude, temperature, humidity, wind speed, terrain, and vegetation. In the context of protecting the public health and welfare, noise can have adverse effects on people and the environment. For discussion purposes, noise effects are disclosed and compared on a rural verses urban basis in this section. Although Montana is predominantly rural, urban noise environments in larger cities and towns exist in each of the six land office areas across the state.

Human and animal perception of noise is affected by intensity, pitch, and duration, as well as the auditory system and physiology of the animal. Noise levels are measured in decibels (dB). On this scale, human perception of sound is linear. The sound spectrum (the plot of amplitude vs. frequency) of a sound must be weighted by the auditory function of an animal to characterize its audibility (Bowles 1995). The U.S. Environmental Protection Agency (EPA) recommends the A-weighted scale (dBA) to describe environmental noise because it emphasizes frequencies that humans hear best (typically between 1,000 and 6,000 Hertz (cycles per second)), is accurate, convenient, and used internationally (EPA 1979). [Terry: Use the MBOCG discussion/definition of day-night noise (Ldn) level.] EPA has extended this method to describe the average sound in a 24-hour period. The Loudness-Day-Night (Ldn) method incorporates a 10-dBA-quietness correction for sound levels between 10:00 pm and 7:00 am. The nighttime dBA adjustment accounts for quieter time background noise levels and human expectations regarding interference with sleep (BOGC 1989). Based on this correction, nighttime noise should be half as loud as daytime noise.

As a result of the Noise Control Act of 1972, EPA developed acceptable noise levels under various conditions that would protect public health and welfare with an adequate

margin of safety. EPA's "Levels Document" indicates that outdoor day-night noise levels less than or equal to 55 dBA are sufficient to protect public health and welfare in residential areas and other places where quiet is a basis for use (EPA 1979). The EPA guidelines are not enforceable regulations, and where applicable, local city or county ordinances may use different noise level criteria.

3.4.1.2 State Wide Overview

Noise levels on Montana's Trust Land tracts are variable. Because of the variety of changes in the acoustical environment, it is not possible to describe noise levels associated with a particular source. Tracts located in or near wilderness areas experience day-night noise levels as low as 30 to 40 dBA (EPA 1979). Noise contributors in the forest or wilderness setting typically include wind, wildlife, flowing water, overhead aircraft, and the occasional human visitor.

Montana's rural residents and occasional visitors commonly experience background (ambient) noise generated by wind, agricultural activity, recreation (primarily hunting), and vehicles traveling on nearby roads and highways. General noise level data from the EPA and the National Transit Institute were used to provide a typical sound level range for rural residential and agricultural cropland areas. Typical baseline noise levels on Trust Land tracts located in the rural, agricultural setting range from approximately 38-dBA to 48-dBA day-night with average noise levels seldom exceeding 50 dBA (EPA 1979).

Primary contributors to background noise in Montana's larger towns and cities are urban traffic, freeway traffic, manufacturing facilities, and aircraft. Day-night noise levels on Trust Land tracts located in these urban/suburban settings typically average between 50 dBA and 80 dBA with some situations resulting in even higher average noise levels (e.g., near airports or freeways; EPA 1979).

3.4.1.3 Land Offices

Ambient noise conditions in Montana are not distinguishable between the six DNRC land offices (Northwestern, Central, Southwestern, Northeastern, Eastern, and Southern land offices). Various levels of ambient noise are present in each of the land office areas and include natural and man-made sources as described in the *Statewide Overview* section above.

3.4.2 Aesthetics

3.4.2.1 Introduction

Aesthetics and visual quality are an important part of the landscape. Although assessing scenic values is generally subjective, scenic quality is typically determined by evaluating the overall character and diversity of landform, vegetation, color, water, and manmade features in a landscape. Typically, more complex or diverse natural landscapes have

higher scenic quality than those landscapes with less complex landscape features. Visual impacts of man's activities are commonly assessed on the basis of contrast (e.g., form, line, color, and texture) to the surrounding landscape.

3.4.2.2 State-Wide Overview

As described in the *Geology and Soil* section, Montana's diverse topography is dominated by the Rocky Mountains in the western one-third of the state, and the Great Plains and badlands in the eastern two-thirds of the state. As a result, Montana's Trust Land tracts, including those under lease by the REMB, are located in dramatically different landscapes that present widely varying aesthetics to the viewer. The ensuing discussion of aesthetics is organized by land offices with similar topographical areas.

3.4.2.3 Regional Overview

- Northwestern Land Office – Land administered by the Northwestern Land Office lies within Montana's Northern Rocky Mountain province. Much of this region is classified as open mountains, a distinctive setting with high, detached mountain ranges separated by broad, smooth-floored valleys. The primary valley in this region is the Flathead Valley. The mountains in this region are composed of Montana's Columbia Rockies, classic mountain landscapes of individual ranges closely spaced with narrow and restricted valleys. The Cabinet Mountains, Purcell Mountains, Whitefish, Flathead, and Swan ranges are some of the landmark highlands within Montana's rugged Northern Rockies. The state's lowest elevation of 1,800 feet above sea level occurs within this region where the Kootenai River flows into Idaho.

Elevations range from approximately 2,000 feet to over 10,000 feet above sea level, and different aspects, result in varying climates, and environments. Trust Land tracts are interspersed amongst viewsheds that range from high alpine wilderness landscapes to that dominated by urban development in the valley bottoms.

Manmade features are readily observable on many of the surrounding mountains. These include roads and clearcuts resulting from logging operations, areas of historic mining activity, transmission lines and other utility corridors, scattered rural residences, and the effects of grazing. Landforms in the Northwestern Land Office area is characterized by the following:

- Mixed, relatively dense conifer forests are found on north-facing slopes and floodplain terraces along most rivers.

- South-facing floodplain terraces, benches, and slopes are characterized by open forests dominated by ponderosa pine with Douglas fir comprising up to one-third of the trees. Trees dominate the vegetation.
- Major river systems occupying broad valleys are dominant landscape features throughout western Montana. Unique landforms associated with the Clark Fork, Flathead, Swan, and other rivers include floodplains, river terraces, bench lands, and water-cut cliffs.
- In addition to river systems, sizeable lakes are landscape features of western Montana. These include Flathead, Swan, Whitefish, and numerous smaller lakes.
- Urban and suburban areas occupy large portions of Montana's western valleys. The primary center of commerce and urban growth in this region is Kalispell. Outlying, smaller communities dot the landscape within the Flathead Valley. Residences, roads and highways, businesses, industries, and community centers such as schools and churches dominate these urban landscapes. The structures and colors of manmade features are dominant and deciduous trees and conifers lining city streets, residences, businesses, and parks add to the urban landscape.
- Southwestern Land Office – Similar to the Northwestern Land Office, the Southwestern Land Office also lies within Montana's Northern Rocky Mountain province. The landscape is dominated by detached mountain ranges separated by numerous broad valleys. Primary valleys in this region include the Clark Fork, Bitterroot, Flint Creek, and Deer Lodge. The mountains in this region include the Bitterroot Range, Flint Creek Range, Sapphire Mountains, and Garnet Range.

Manmade features are readily observable on many of the surrounding mountains. Roads and clearcuts resulting from logging operations, areas of historic mining activity, transmission lines, utility corridors, scattered rural residences, and agricultural practices affect the visual characteristics in the region. Landforms in the Southwestern Land Office area is characterized by the following:

- Mixed, relatively dense conifer forests are found on north-facing slopes and floodplain terraces along most rivers.
- South-facing floodplain terraces, benches, and slopes are characterized by open forests dominated by ponderosa pine with Douglas fir

comprising up to one-third of the trees. Trees dominate the vegetation.

- Major river systems occupying broad valleys are dominant landscape features in the Southwestern Land Office area. Unique landforms associated with the Clark Fork, Bitterroot, and other rivers include floodplains, river terraces, and bench lands.
- Urban and suburban areas occupy large portions of the valleys. The primary center of commerce and urban growth in this region is Missoula. Outlying, smaller communities dot the landscape within the various valleys. Residences, roads and highways, businesses, industries, and community centers dominate these urban landscapes. The structures and colors of manmade features are dominant and deciduous trees and conifers lining city streets, residences, businesses, and parks add to the urban landscape.
- Central Land Office – Land administered by the Central Land Office is considered Montana's Rocky Mountain Front extending from the Canadian border south to Idaho and Wyoming. The Front is comprised of several individual mountain ranges, foothills, and adjacent prairie that forms the westernmost extension of the Great Plains. Landscape character types, and associated structure and color features within the area administered by the Central Land Office include:
 - The ragged peaks of the Sawtooth Range, the overthrust belt that forms the western skyline of Montana's northern Rocky Mountain Front. Limestone outcrops several thousand feet in height rise abruptly from prairie grasslands along many stretches of the front. Along others, the disturbed belt, heavily eroded hills and buttes formed from volcanic rock and thrust folds, buffer the front from the prairie. Barren sedimentary and volcanic rock outcrops, prairie grassland, scattered conifer forests, and scattered aspen groves and shrubs provide the landscape colors of the front.
 - Several isolated mountain ranges lie to the east of the Rocky Mountain Front within the area administered by the Central Land Office. These ranges dissect the surrounding plains, and are composed of mountains, hills, slopes, terraces, and fans. Coniferous forests of these ranges provide the dominant colors with shrubs, grasses, and deciduous trees providing seasonal variations.
 - The Missouri River and its tributaries dissect foothills, benchlands, and prairie located within the Central Land Office area. These drainages provide corridors of riparian vegetation within a generally dry

landscape. Deciduous trees, shrubs, and grasses provide a seasonal color contrast in comparison to the surrounding foothill or prairie landscape.

- Cities within the Central Land Office area that typify urban growth in Montana include Great Falls, Helena, and Butte. Great Falls is set against the backdrop of the Great Plains to the east, the prominent presence of the Missouri River, and the Rocky Mountain Front visible on the Western horizon. Helena, located in a broad, open valley, is surrounded by low-rising foothills and mountain ranges, with three large reservoirs of the Missouri nearby. Butte is also located in an open valley that exhibits landscape features associated with historic mining activity in almost every direction.
- Northeastern, Southern and Eastern Land Offices – The Great Plains, punctuated by isolated “island” mountain ranges dominate the eastern two-thirds of Montana. Major drainages including those of the Missouri, Milk, Yellowstone, and Powder rivers dissect the prairie. Prairie pothole wetlands, remnants of the last glacial episode in Montana, are numerous north of the Missouri River to the Canadian border in the northeastern portion of the state. Erosional forces of wind and water have created badlands that characterize the landscape of the southeastern portion of the state.

Throughout the eastern two-thirds of Montana, cultivated fields, occupied and abandoned farmsteads, rail lines, highways, county roads, and existing transmission lines are prevalent manmade landscape features. Landscape character types, and associated structure and color features include:

- Isolated mountain ranges that dissect the surrounding plains, and are composed of hills, slopes, terraces, and fans. Coniferous forests of these ranges provide the dominant colors with shrubs, grasses, and deciduous trees providing seasonal variations.
- Lowlands along major drainages, tributary drainages, and prairie potholes that include riparian, wetland, native grassland, and cultivated areas. Various shades of green dominate the colors provided to the viewer of these lowlands during the spring and summer. Fall colors provided by deciduous plants are typical, and fade to brown during the late fall through the winter months.
- Upland areas where vegetation diversity is limited to dryland farming and pasture. Colors vary seasonally from green to brown crops and pasture during summer and fall, brown and black associated with fallow

farm fields year round, and white and brown associated with late fall and winter periods.

- Areas within lowlands or uplands that have been modified by manmade features (homes, barns, silos). Colors in and around the predominantly rural residences and communities in eastern Montana are typically dominated by surrounding agricultural land, shelterbelts, and the structures themselves.
- Badlands composed of flat-topped buttes, sandstone pillars, gullies and rills, steep erosional slopes, and dramatic “fairyland” shapes. The badlands are sparsely vegetated with scattered pines, junipers, sage, and grasses although drainages may occasionally host riparian areas. Colors of the badlands are most commonly dominated by the pastels of the exposed sedimentary rocks.

3.4.3 Cultural Resources

3.4.3.1 Introduction

Cultural resources are generally recognized as tangible products of human behavior that are more than 50 years old. They include archaeological sites, historic sites, architectural properties, districts, Traditional Cultural Properties, and man-made/man-caused landscapes, structures, objects or features. *Paleontologic resources* are fossilized plant and animal remains which are rare and critical to scientific research. The value of non-renewable cultural and paleontologic resources lies in their ability to provide credible and meaningful kinds of information about past animal and human populations and the environments within which they existed. Discovery and evaluation of these resources before they are impacted by ground disturbing activities, or removed from state ownership, is required by law.

3.4.3.2 Regulatory and Guidance Framework

Legislation that mandates state management of cultural and paleontologic resources consist of the Montana State Antiquities Act (22-3-4 M.C.A.), The Montana Human Skeletal Remains and Burial Site protection Act (22-3-802 et. seq. M.C.A.), and relevant portions of the Montana Environmental Policy Act (75-1-103-2e M.C.A.). The procedures that REMB follows to implement the mandates of the Montana State Antiquities Act can be found at A.R.M. 36-2-801 et. seq.

In order to establish a basic historical context within which cultural resources are organized, the culture history model found at Brumley and Rennie (1993) will be referenced. After a cultural resource and it's historical context is identified, that resource will be evaluated to determine if it is a Heritage Property-- a property determined potentially eligible for listing in the National Register of Historic Places (NRHP). The

NRHP is the official list of the Nation's cultural resources worthy of preservation. Evaluating a cultural resource's NRHP listing eligibility is accomplished by following the procedures outlined in National Register Bulletin #15.

3.4.3.3 Statewide Overview

The synthesis of data derived from more than three decades of systematic cultural and paleontologic inventory in Montana suggests that cultural resources, and to a lesser extent paleontologic resources, can be expected to occur across the landscape with varying densities. However, some landforms and environments have a higher potential than others for containing these resources. As will be outlined in the following subsections, areas west of the Continental Divide have a lower probability of containing paleontologic resources than do areas east of the Continental Divide. Further, the Northeastern and Eastern Land Offices have a lower probability of containing cultural resources associated with cambium harvest and hard rock mining than do areas in the Central, Southwestern, and Northwestern Land Offices. Because a number of environmental and geologic factors must be taken into consideration when attempting any kind of predictive modeling, topography alone should never be the deciding factor as to whether or not an inventory of cultural and paleontologic resources is warranted.

The synthesis of data derived from more than three decades of systematic cultural and paleontologic inventory in Montana suggests that cultural resources, and to a lesser extent paleontologic resources, can be expected to occur across the landscape with varying densities. However, some landforms and environments have a higher potential than others for containing these resources. As will be outlined in the following subsections, areas west of the Continental Divide have a lower probability of containing paleontologic resources than do areas east of the Continental Divide. Further, the Northeastern and Eastern Land Offices have a lower probability of containing cultural resources associated with cambium harvest and hard rock mining than do areas in the Central, Southwestern, and Northwestern Land Offices. Because a number of environmental and geologic factors must be taken into consideration when attempting any kind of predictive modeling, topography alone should never be the deciding factor as to whether or not an inventory of cultural and paleontologic resources is warranted.

3.4.3.4 Regional Overview

- Northwestern Land Office – Paleontologic resources are rare within the Northwestern Land Office area and prehistoric/protohistoric cultural resources tend to be concentrated in the major drainage bottoms. Campsite remnants, mature ponderosa pine trees which exhibit cambium extraction scars, white pine nut collection sites, short term stone tool manufacturing/maintenance sites (lithic scatters), vision quest sites, rock art sites, and trails/travel corridors are the kinds of prehistoric and protohistoric cultural resources typically encountered within the area. Typical cultural resources within the area of historic age include evidences of past coal, hard rock and placer mining activities, features associated with

timber harvesting/lumber production activities, homesteads, sheep/cattle ranches, railroads, abandoned town sites, fire towers/lookouts, and historic travel routes.

- Southwestern Land Office – Paleontologic resources are rare within the Southwestern Land Office area and prehistoric/protohistoric cultural resources tend to be concentrated in the major drainage bottoms. Campsite remnants, mature ponderosa pine trees which exhibit cambium extraction scars, white pine nut collection sites, short term stone tool manufacturing/maintenance sites (lithic scatters), tool stone quarry sites, vision quest sites, rock art sites, stone circles (tipi rings), trails/travel corridors and to a limited extent, bison kill sites and cairn alignments associated with bison hunting activities are the kinds of prehistoric and protohistoric cultural resources typically encountered within the area. Typical cultural resources within the area of historic age include evidences of past hard rock and placer mining activities, features associated with timber harvesting/lumber production activities, homesteads, sheep/cattle ranches, railroads, abandoned town sites, fire towers/lookouts, and historic travel routes.
- Central Land Office – Paleontologic resources occur with moderate frequency in the northern ½ of the area, but are less common in the southern ½ of the area. Because of the greater variability in topography and ecotones, prehistoric/protohistoric cultural resources can be expected to occur on all landforms except the steepest slopes. Campsite remnants, white pine nut collection sites, short term stone tool manufacturing/maintenance sites (lithic scatters), tool stone quarry sites, vision quest sites, rock art sites, stone circles (tipi rings), isolated cairns, bison kill sites and cairn alignments associated with bison hunting activities, and to a limited extent, trails/travel corridors are the kinds of prehistoric and protohistoric cultural resources typically encountered within the area. Typical cultural resources within the area of historic age include evidences of past coal, hard rock and placer mining activities, features associated with timber harvesting/lumber production activities, homesteads, farms, sheep/cattle ranches, railroads, abandoned town sites, fire towers/lookouts, and historic travel routes.
- Northeastern Land Office – Paleontologic resources occur with moderate to high frequency throughout the Northeastern Land Office area. With the exception of the Missouri River Breaks, topography in the Northeastern Land Office area exhibits less relief overall than any of the previously described areas and cultural resources can be expected to occur on all landforms in the area. Campsite remnants, short term stone tool manufacturing/maintenance sites (lithic scatters), tool stone quarry/collection sites, vision quest sites, stone circles (tipi rings), isolated

cairns, bison kill sites and cairn alignments associated with bison hunting activities are the kinds of prehistoric and protohistoric cultural resources typically encountered within the area. Typical cultural resources within the area of historic age include evidences of past coal mining activities, features associated with timber harvesting/lumber production activities, farms, homesteads, sheep/cattle ranches, railroads, abandoned town sites, and historic travel routes.

- Southern Land Office – Paleontologic resources occur with moderate to high frequency throughout the Southern Land Office area. As with the Central Land Office area, because of the great variability in topography and ecotones, prehistoric/protohistoric cultural resources can be expected to occur on all landforms except the steepest slopes. Campsite remnants, white pine nut collection sites, short term stone tool manufacturing/maintenance sites (lithic scatters), tool stone quarry sites, vision quest sites, rock art sites, stone circles (tipi rings), isolated cairns, bison kill sites and cairn alignments associated with bison hunting activities, and to a limited extent, dry-laid masonry structures, and trails/travel corridors are the kinds of prehistoric and protohistoric cultural resources typically encountered within the area. Typical cultural resources within the area of historic age include evidences of past coal, hard rock and placer mining activities, features associated with timber harvesting/lumber production activities, farms, homesteads, sheep/cattle ranches, railroads, abandoned town sites, fire towers/lookouts, and historic travel routes.
- Eastern Land Office – Paleontologic resources occur with moderate to high frequency throughout the area. Topography in the Eastern Land Office area exhibits less relief overall than any of the previously described areas and cultural resources can be expected to occur on all landforms in the area. Campsite remnants, short term stone tool manufacturing/maintenance sites (lithic scatters), tool stone quarry/collection sites, vision quest sites, rock art sites, stone circles (tipi rings), isolated cairns, bison kill sites and cairn alignments associated with bison hunting activities are the kinds of prehistoric and protohistoric cultural resources typically encountered within the area. Typical cultural resources within the area of historic age include evidences of past coal mining activities, features associated with timber harvesting/lumber production activities, farms, homesteads, sheep/cattle ranches, railroads, abandoned town sites, and historic travel routes.

3.4.4 Community Infrastructure

3.4.4.1 Statewide Overview

The condition of community infrastructure varies across the state. Transportation systems, sewer and water facilities, public facilities and services generally reflect local

economic conditions and the ability of the tax base to support construction and maintenance. Typically communities prepare capital improvement plans to address overall community infrastructure and services needs, based on need and the availability of financing. Projects are typically financed through a combination of state and federal funding and local mechanisms including special improvement districts, general obligation and revenue bonds, and direct appropriation.

Montana's land use statutes, particularly the Montana Subdivision and Platting Act, require that new subdivisions provide adequate infrastructure to support the development. The costs associated with the provision of streets, sidewalks, lighting, sewer, and water is typically paid by the developer and/or the ultimate owners of the property involved.

3.4.4.2 The Role of Community Infrastructure in the REMB Program

Infrastructure is key to the development of residential, industrial and commercial uses on state Trust Lands. The condition of community infrastructure – streets, sewer and water systems, utilities, lighting, public facilities – varies across the state, depending on the age of systems, the availability of financial resources for construction and maintenance. The REMB intends to evaluate the availability and accessibility of infrastructure as part of the overall project selection funnel process (see Chapter 2). Projects that are designed to take advantage of existing infrastructure capacity are likely to be more feasible. In addition, in those cases where the Bureau works with a developer in preparing a site for a specific use, additional, new infrastructure may be required for project implementation. Generally, it will be the responsibility of the developer and/or the community as a whole to provide the necessary infrastructure.

3.4.5 Taxation

3.4.5.1 Property Taxes

- State Overview – Property in Montana is subject to ad valorem taxes levied on the basis of property type and value. The Montana legislature has determined that different types of property and property used for different purposes should be taxed at different rates and bear a different proportion of the overall tax burden. Under 15-6-101MCA, the state has identified a variety of property classifications. Among these are Class 3 – Agriculture, Class 4 – residential and commercial real estate, Class 10 – Forested Lands, and eight other classifications. (Industrial properties are classified under a variety of categories depending on the specific type of industry). Property tax rates are calculated in the following manner: The assessed valuation of the property is multiplied by the classification rate to obtain the taxable value. Taxable values are then multiplied by the local mill levy to derive the actual tax. A mill is equal to 1/1000 of the entire taxable value of the jurisdiction of the county and municipality within which the property is

located. The number of mills levied varies by jurisdiction and is dependent on the overall tax base. Property taxes are levied on both the value of the land and on any improvements. Generally, approximately two thirds of the property taxes collected help fund the local public school system, K-12. Seven mills are directed to the state university system and the remaining one third supports local government services and infrastructure.

Non-permanent residential improvements such as trailers and recreational cabins located on leased properties are taxed under Montana's personal property statutes.

- Special Fees and Assessments – In addition to property taxation, land and improvements are subject to a variety of special fees for services (garbage, fire and ambulance) and capital improvements (streets, sidewalks, sewers, lighting). Payments for these services are often paid through special improvement districts (SID's) or Rural Improvement Districts (RID's). Properties exempt from advalorem taxes are not necessarily exempt from special fees.
- Exemptions – Lands and improvements owned by local, state and federal government agencies are exempt from property taxes as are properties owned by certain non-profit organizations.
- Beneficial Use Taxes – Exempt land and improvements that are leased to a private entity engaged in a business activity are subject to taxation. Under 15-24-1203, MCA a tax is imposed and must be collected "upon the possession or other beneficial use for industrial, trade or other business purposes enjoyed by any private individual, association or corporation of any property, real or personal, that for any reason is exempt from taxation." The tax is calculated in the same manner as for non-exempt properties.
- The Role of Taxation in the REMB Program
 - Commercial and Industrial Properties – Currently, properties that are leased for commercial and industrial purposes are subject to beneficial use taxes. Lessees pay a beneficial use tax on real and personal property used in their trade or business per 15-24-1203, MCA. The REMB works with lessees, the Montana Department of Revenue and local taxing jurisdictions to assure compliance. As a result, local communities benefit from taxes associated with commercial and industrial uses on land that is otherwise exempt from property taxation. In addition, commercial and industrial lessees would be subject to fees and assessments for specific improvements and services.

- Residential Properties – Residential lessees on Trust Lands are subject to personal property taxes on non-permanent residential properties including recreational cabins and trailers. In certain cases, they may also be subject to special assessments for area improvements and services.

3.4.5.2 State Equalization Payments to Counties

In 1965, legislation was adopted providing for reimbursement to counties for loss of revenue where tax-exempt state land constituted in excess of 6% of total land area. Funds were paid to counties and distributed to the elementary school districts (60% of the payment) and to the county road funds (40%). Subsequent changes in Montana statute have addressed the incorporation of the Trust Land Management program into the Montana Department of Natural Resources and Conservation and associated administrative changes. In 2001, the state overhauled its entire system of shared revenues. However, counties continue to be reimbursed for the tax-exempt state land in excess of 6% of the total land area pursuant to the original intent of the 1965 legislation. Over the past four years, the total amount paid to counties has averaged \$550,000 annually. Table 3-26 displays the top 5 counties receiving the most State Equalization Payments.

Table 3-26. Counties Receiving the Highest Equalization Payments					
County	FY98	FY99	FY00	FY01	FY02
Daniels	168,894	202,878	189,055	198,046	262,656
Chouteau	121,049	122,137	120,305	121,846	127,825
Beaverhead	48,485	54,032	58,178	66,535	68,749
Hill	41,678	43,404	45,750	46,452	47,941
Judith Basin	22,383	22,947	23,865	26,253	28,015



Chapter 4

Environmental Consequences

Introduction and Purpose of the Chapter

This Chapter provides a description of the impacts on the quality of the human environment for each of the proposed alternative actions. Integral to the analysis is a concept that growth indices (population/economics) can be estimated into the future and that trust lands would attempt to participate in varying degrees to the expected growth. Demographic analyses are used to predict the relative scale (acres) and location of future growth in the state. Information is summarized on a regional basis that corresponds to DNRC administrative land office regions.

Estimates of new growth are summarized by Land Office Region, together with the corresponding share of growth expected on trust lands. The acres of new residential, commercial, industrial, and conservation uses sets the framework for identifying and evaluating effects of implementing each of the alternatives.

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4.1 INTRODUCTION

DNRC has used available data to predict environmental effects associated with each alternative. A level of uncertainty is associated with any exercise in predicting outcomes, especially where natural systems are involved. The prediction of effects on environmental resources described in this chapter of the Programmatic EIS is intended to allow a comparison of alternatives.

Trust lands are located throughout Montana and are influenced to varying degrees by land use growth and development of the nearby communities. In some situations, trust lands are becoming surrounded by new growth and may be an essential component for orderly growth and development of a community. For most situations, it would be appropriate and responsible for the REMB to participate in the local community planning processes.

Commercial and industrial development on trust lands would likely occur in urban areas or along major transportation corridors. Residential development opportunities would likely be greater in the western Montana Land Office areas (Northwestern, Southwestern, and Central) as compared to the eastern Montana (Northeastern, Southern, and Eastern) Land Office areas. New development on trust lands through the year for 2025 for commercial, industrial, or residential uses is likely to total less than one percent of the total trust land area.

4.1.1 Land Base and Filtration Methodology

Trust land represents approximately 5.4 percent of the total land area in Montana. The total trust land acreage serves as a pool of potential land available for residential, commercial, industrial, and conservation uses. Under the plan alternatives of this EIS, a funnel filtration process is described to reduce the available pool of lands to only those that may have high suitability for real estate opportunities. Methodology is described in Chapter 2 that explains how lands are screened through physical, biological, transitional, and market filters to narrow the type of lands that might have some potential for development or conservation. Additional filters would be used at a project level to define project level opportunities.

4.1.2 Growth Indices

Chapter 3 sets the historical background to population and economic growth in Montana. The information in Table 3-3 is used to help estimate future population and economic growth through the year 2025, which is presented in table 4-1. The population of Montana is expected to increase from approximately 903,00 (2000) to 1.16 million by the year 2025. Most of the increased population growth and associated development is expected in the westerly land office regions (CLO, NWLO, SWLO) of the state. Populations within the Northeastern Land Office and Eastern Land Office are expected to decline.

Table 4-1. Population and Income Projections* by Land Office Region

	2000	2005	2010	2015	2020	2025
Northwestern Land Office (NWLO)						
TOTAL POPULATION (THOUSANDS)	130.476	142.142	154.293	166.84	179.68	193.044
NONFARM LABOR INCOME	1672.308	1928.284	2186.426	2462.842	2761.298	3085.053
PERSONAL INCOME	2704.567	3119.866	3554.505	4030.761	4556.281	5138.890
PCI	20728.46	21948.94	23037.37	24159.44	25357.75	26620.30
Southwestern Land Office (SWLO)						
TOTAL POPULATION (THOUSANDS)	190.216	201.85	216.04	230.708	245.88	261.605
NONFARM LABOR INCOME	2823.635	3205.967	3625.740	4079.457	4575.769	5122.714
PERSONAL INCOME	4204.704	4761.363	5428.979	6165.806	6980.874	7883.928
PCI	22104.89	23588.62	25129.51	26725.58	28391.38	30136.76
Central Land Office (CLO)						
TOTAL POPULATION (THOUSANDS)	285.947	299.152	314.599	330.854	347.833	365.603
NONFARM LABOR INCOME	4356.937	4874.543	5426.837	6031.102	6688.235	7400.337
PERSONAL INCOME	6675.899	7492.185	8315.138	9226.090	10232.14	11342.61
PCI	23346.63	25044.74	26430.91	27885.68	29416.83	31024.39
Northeastern Land Office (NELO)						
TOTAL POPULATION (THOUSANDS)	79.729	78.045	77.427	77.038	76.827	76.759
NONFARM LABOR INCOME	780.9301	841.0773	895.4571	955.1436	1021.023	1093.873
PERSONAL INCOME	1623.319	1778.706	1887.169	2006.996	2139.766	2286.971
PCI	20360.46	22790.77	24373.53	26052.03	27851.75	29794.17
Southern Land Office (SLO)						
TOTAL POPULATION (THOUSANDS)	169.039	177.638	186.731	196.342	206.354	216.874
NONFARM LABOR INCOME	2806.166	3110.595	3427.488	3775.578	4158.862	4582.347
PERSONAL INCOME	4124.626	4581.461	5059.633	5589.857	6179.484	6837.376
PCI	24400.44	25791.00	27095.84	28470.00	29946.03	31526.95
Eastern Land Office (SLO)						
TOTAL POPULATION (THOUSANDS)	48.009	47.284	47.287	47.434	47.647	47.952
NONFARM LABOR INCOME	614.0315	691.2994	749.6756	810.4908	873.7881	939.6587
PERSONAL INCOME	1005.657	1114.330	1195.929	1283.100	1376.427	1476.556
PCI	20947.26	23566.76	25290.86	27050.22	28888.02	30792.38

Table 4-1. Population and Income Projections* by Land Office Region

	2000	2005	2010	2015	2020	2025
Montana						
TOTAL POPULATION (THOUSANDS)	903.416	946.111	996.377	1049.216	1104.221	1161.837
NONFARM LABOR INCOME	13054.00	14651.76	16311.62	18114.61	20078.97	22223.98
PERSONAL INCOME	20338.77	22847.91	25441.35	28302.61	31464.98	34966.33
PCI	22513.18	24149.29	25533.86	26975.01	28495.18	30095.73

Table Notations: Income is expressed in 2000 dollars, PCI = Per Capita Income

Source: Polzin 2004

The regional growth estimates in the previous table were used to model the number of acres that would be developed for rural residential and commercial/industrial uses (Jackson 2004, Appendix D) Expected growth of residential uses (lot sizes >1acre <26 acres) and commercial/industrial land uses within land office regions for all land ownerships is described in Tables 4-2 and 4-3 and in Map Exhibits 4-1 and 4-2 It is anticipated that most of the new single-family residential opportunities would be achieved through sale, while most of the industrial and commercial (including multi-family residential) opportunities would be achieved through lease. Conservation opportunities are not necessarily restricted by alternative but the growth in conservation acres is less predictable since this type of land use is not necessarily linked to market (growth) conditions. Most of the conservation objectives would be achieved through the lease or sale of development rights or purchase of conservation easements.

Table 4-2. Growth Estimates for Rural Residential Acreages on all Land Ownerships

Land Office Region	Growth Estimates (acres) by Time Period				
	2003-2010	2011-2015	2016-2020	2021-2025	Totals
NWLO	10,776 – 17,960	7,016 – 11,694	7,181 – 11,968	7,474 – 12,456	32,446-54,078
SWLO	8,575 – 14,291	5,918 – 9,863	6,122 – 10,203	6,344 – 10,574	26,959-44,933
CLO	2,739 – 4,565	5,293 – 8,821	5,570 – 9,283	5,818 – 9,696	19,420-32,366
NELO	(225) – (135)	46 - 76	67 - 111	96 – 160	(16) - 211
SLO	3,270 – 5,450	2,197 – 3,661	2,289 – 3,815	2,405 – 4,008	10,161-16,933
ELO	(213) – (128)	31 - 51	72 - 120	49 - 81	(61) - 120
Grand Total	24,922 – 42,003	20,501 – 34,166	21,301 – 35,400	22,186 – 36,975	88,909-148,644

Source: Jackson 2004

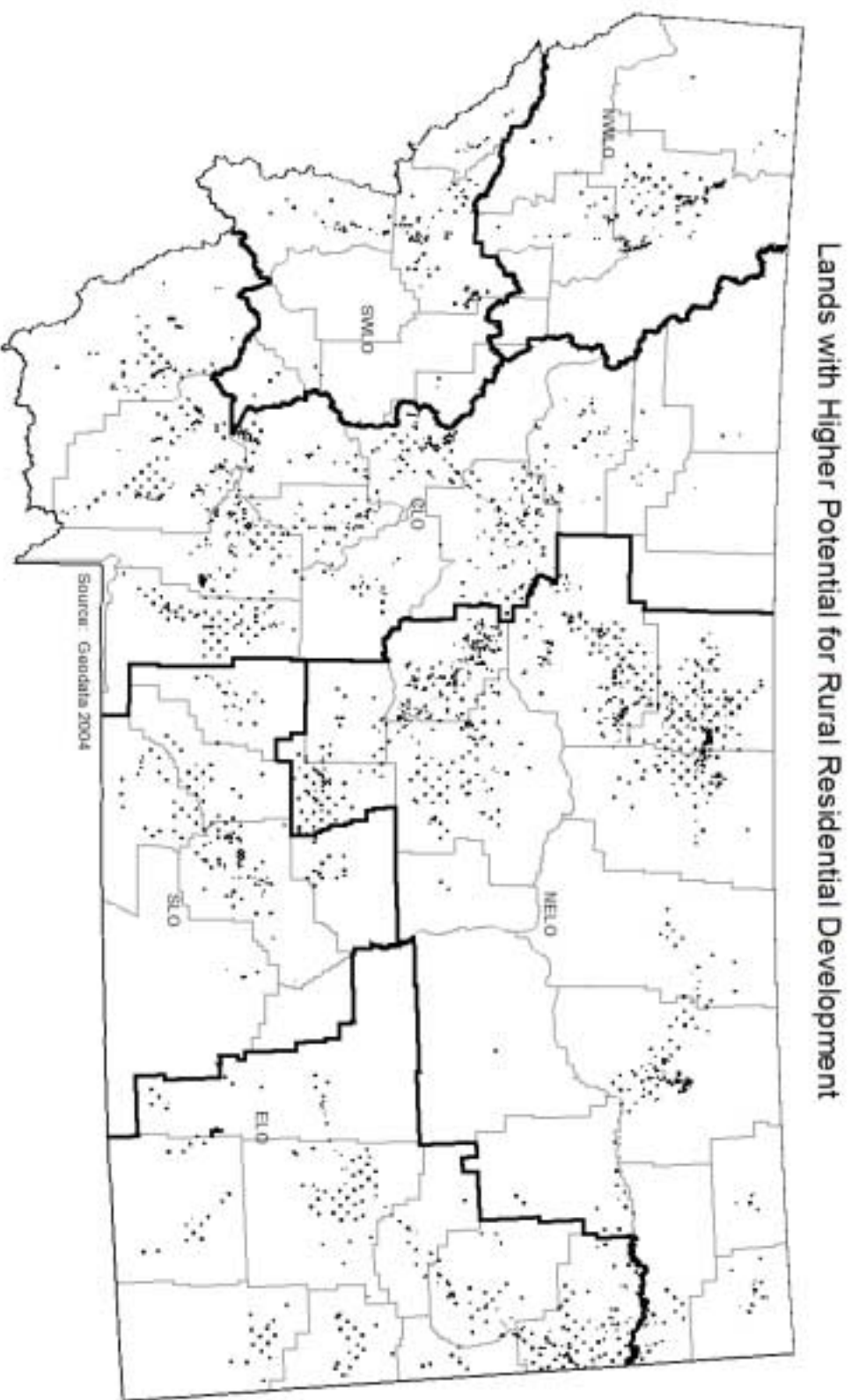
Table 4-3. Growth Estimates for Commercial/Industrial Acreages on all Land Ownerships

Land Office Region	Growth Estimates (acres) by Time Period				
	2002-2010	2011-2015	2016-2020	2021-2025	Totals
NWLO	2,540 – 4,234	1,678 – 2,796	1,854 – 3,090	2,051 – 3,418	8,123-13,538
SWLO	3,157 – 5,261	2,090 – 3,483	2,344 – 3,906	2,615 – 4,358	10,206-17,008
CLO	3,784 – 6,306	2,379 – 3,965	2,685 – 4,475	2,977 – 4,961	11,825-19,701
NELO	777 – 1,295	615 – 1,025	668 – 1,114	736 – 1,226	2,796-4,660
SLO	2,606 – 4,344	1,725 – 2,875	1,935 – 3,225	2,159 – 3,598	8,425-14,042
ELO	320 - 533	132 - 220	155 - 258	170 - 283	777-1,294
Grand Total	13,184 – 21,973	8,619 – 14,364	9,641 – 16,068	10,708 – 17,844	42,152-70,249

Source: Jackson 2004

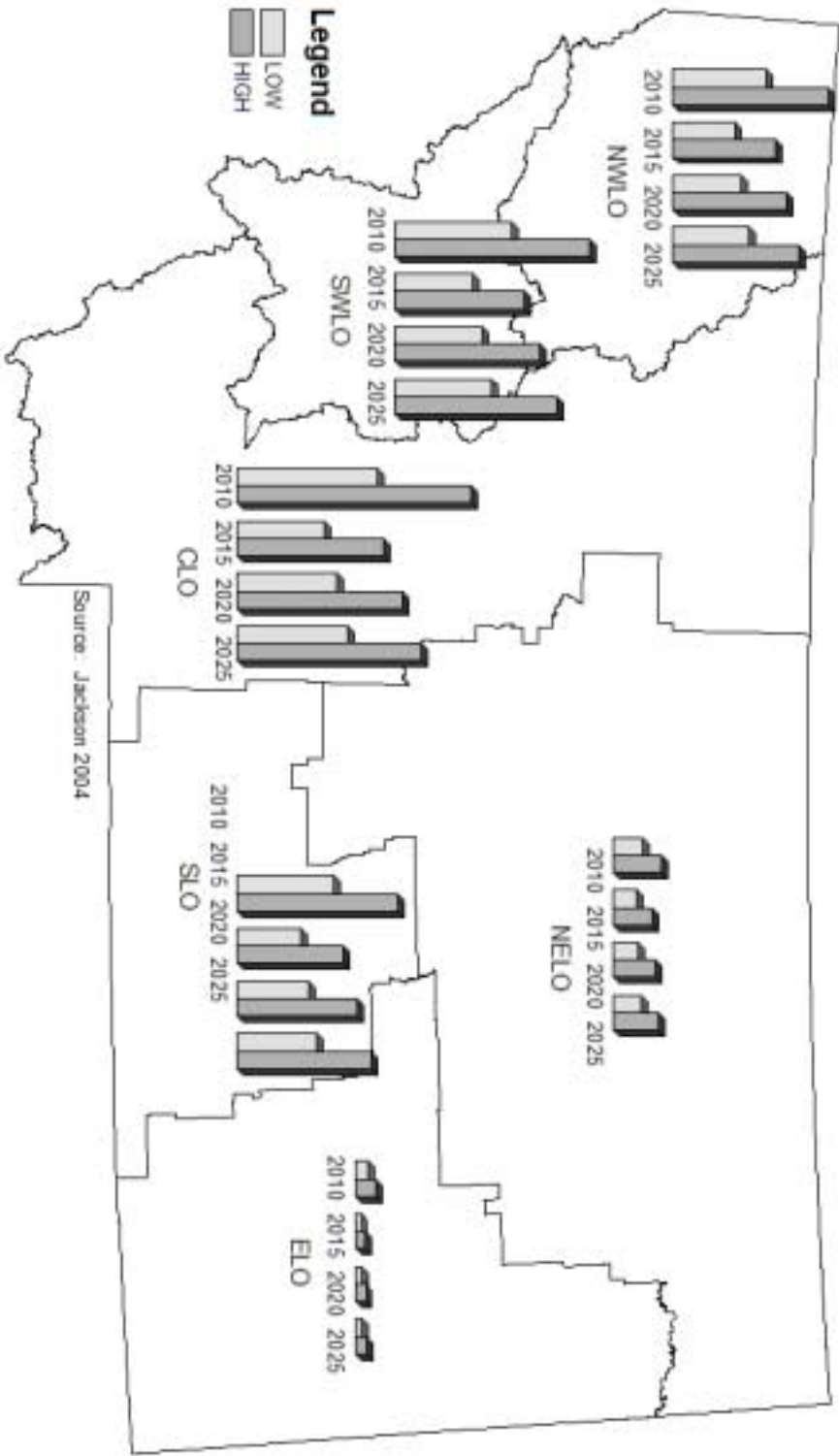
The Trust Land share of growth in each of these land office regions varies by alternative as described in Chapter 2, Section 5.

Map Exhibit 4-1



Map Exhibit 4-2

Growth Estimates for Commerical/Industrial Acreages on all Land Ownerships



4.1.3 Summary Description of Alternatives

This section provides a summary of the estimated number of acres of trust lands that would be reclassified to “other”, including conservation, or developed for residential, commercial, or industrial uses under each alternative through the year 2025. Detailed descriptions of each alternative are included in Chapter 2.

4.1.3.1 Alternative A – Current Program

Implementation of Alternative A would result in DNRC continuing the current administration of the Real Estate Management Program. The number of new acres estimated for residential, commercial, and industrial uses on trust lands under the current program, for each land office, is displayed in Table 4.4.

TABLE 4-4. ALTERNATIVE A – Estimated Number of New Developed and Conservation Acres on Trust Lands Through the Year 2025*							
	LAND OFFICE REGION						
Land Use Designation	NWLO	SWLO	CLO	NELO	SLO	ELO	Totals
Residential	2,163	1,258	1,036	4	271	1	4,733
Commercial/Industrial	555	489	647	172	231	42	2,136
Conservation	778	375	3,975	4,668	130	649	10,575
Total	3,496	2,122	5,658	4,844	632	692	17,444
* These are mid range values and the actual acreages could vary by plus or minus 25%							

Source: Jackson 2004

Under Alternative A, the estimated acres of new industrial and/or commercial use ranges from 42 in the Eastern Land Office to 647 in the Central Land Office and 2,136 acres for all Land Office areas. The total commercial/industrial acreage estimate would represent approximately 0.04 percent of the total Trust Land in Montana. The estimated number of new residential acres under Alternative A ranges from 1 in the Eastern Land Office to 2,163 in the Northwestern Land Office. The total developed residential acreage of 4,733 would represent 0.09 percent of the total Trust Land in Montana.

The REMB would try to secure approximately 10,575 acres of conservation lands (including purchased development rights) during the life of the Plan.

4.1.3.2 Alternative B – Diversified Portfolio

Under this alternative, the REMB would actively participate in the regional market economy by trying to keep pace competitively with the development growth related to residential, commercial, and industrial uses. The REMB would need additional staff and funding to proportionally share in the anticipated growth of those 3 land

use sectors (refer to Chapter 2. The number of new developed and conservation acres is estimated Table 4-5.

TABLE 4-5. ALTERNATIVE B – Estimated Number of New Developed and Conservation Acres on Trust Lands Through the Year 2025*

Land Use Designation	LAND OFFICE REGION						Totals
	NWLO	SWLO	CLO	NELO	SLO	ELO	
Residential	4,325	2,515	2,072	9	541	3	9,465
Commercial/Industrial	1,083	953	1,262	335	449	83	4,165
Conservation	1,348	813	7,196	7,091	456	1,299	18,203
Total	6,756	4,281	10,530	7,435	1,446	1,385	31,833
* These are mid range values and the actual acreages could vary by plus or minus 25%							

New commercial and/or industrial uses under Alternative B would total approximately 4,165 acres or about 2,029 acres more than anticipated by Alternative A. Development of 3,298 acres of commercial/industrial uses in western Montana Land Office areas (Northwestern, Southwestern, and Central Land Office areas) would represent about 0.18 percent of the total trust land area in those Land Office areas. Overall, new commercial and industrial acres would total less than 0.01% of the total trust land area.

New residential acres would total approximately 9,465 acres, with most of the related development occurring in the western land offices. Residential development in the 3 westerly land offices would exceed that of easterly land offices by over eight times (4,587 acres versus 553 acres, respectively). Conversion of 4,587 acres to residential use in the 3 most western Land Office areas would represent about 0.25 percent of the total Trust Lands in those Land Office areas. Overall, new residential acres would total less than 0.1% of the total trust land area.

The REMB would try to secure approximately 18,203 acres of conservation lands (including purchased development rights) during the life of the Plan.

4.1.3.3 Alternative B-1 – Diversified Portfolio, Conservation Priority

Under this Alternative, the REMB would strive to achieve the conservation acres shown in Table 4-5. Under B-1, the total estimate of 9,465 acres for new residential acres (Table 4-5) would be reduced to 4,732 acres to encourage additional opportunities for conservation uses on residually valued properties.

4.1.3.4 Alternative C – Focused Portfolio

Implementation of Alternative C would result in the expansion of the Real Estate Management Program to secure more of the projected growth market in the state compared to Alternatives A and B, thereby increasing the revenue return to the state

from selected lands. The number of new developed and conservation acres under Alternative C is estimated in Table 4.6.

TABLE 4-6. ALTERNATIVE C – Estimated Number of New Developed and Conservation Acres on Trust Lands Through the Year 2025*							
	LAND OFFICE REGION						
Land Use Designation	NWLO	SWLO	CLO	NELO	SLO	ELO	Totals
Residential	8,652	5,032	4,143	18	1,084	5	18,934
Commercial/Industrial	2,166	1,905	2,523	671	899	165	8,329
Conservation	1,780	1,208	9,701	9,438	738	1,554	24,419
Total	12,598	8,145	16,367	10,127	2,721	1,724	51,682
* These are mid range values and the actual acreages could vary by plus or minus 25%							

New commercial/industrial acres range from 165 in the Eastern Land Office area to 2,523 in the Central Land Office area. Most of the new industrial and commercial uses would occur in the high growth areas of western and central Montana. The total estimated acres of 8,329 represents approximately 0.1% of the total trust land area.

Estimates of new residential acres range from 5 in the Eastern Land Office area to 8,652 acres in the Northwestern Land Office area under Alternative C. Eastern Montana Land Office areas (Northeastern, Southern, and Eastern) would see a combined total of 1,107 acres of residential acres versus 17,827 acres in the western Montana Land Office areas (Northwestern, Southwestern, and Central). The total residential estimate of 18,934 represents approximately 0.3% of the total trust land area.

Under Alternative C, the REMB would try to secure approximately 24,419 acres of conservation lands (including purchased development rights) during the life of the Plan.

4.1.3.5 Alternative C-1 – Focused Portfolio, Conservation Priority

Under this Alternative, the REMB would strive to achieve the conservation acres as shown in Table 4-6. Conservation use would generally be achieved through the lease or sale of development rights on lands with residential values. Under C-1, the total estimate of 18,934 acres for new residential acres (Table 4-6) would be reduced to 9,467 acres to encourage additional opportunities for conservation uses on residentially valued properties.

4.1.3.6 Alternative D – Focused Entitlements

Alternative D is a blending of the five alternatives (A, B, B-1, C, C-1) identified in the DEIS. The goal of “D” is to share proportionately with anticipated community

growth (as proposed under “B”) but the philosophy of “D” is to focus more on improving land entitlements to maximize income to the trusts and comply with local, state, and federal regulations. Proactive land use planning, as particularly emphasized in Alternative C, is a central theme to achieving desired land entitlements with outcome objectives that promote good community planning. The level at which this alternative may be implemented will be dependent on the vigor of the real estate market, the position of trust lands in those growing markets, and level of staffing and associated budgets. To that extent, the acreage goals or guidelines that might be anticipated for developed and conservation uses are as generally shown in Table 4.5. However, if land entitlements and land development outcome objectives can be achieved to a greater extent with the staffing and funding constraints of Alternative B, then the acreage estimates may approach those expected for Alternative C (Table 4.6). Alternatively, the development outcomes (acreages) may be closer to the expectations of Alternative A if the desired staffing and funding objectives are not achieved. A development cap with a link to a defined monitoring timeframe (see Section 2.6.6.4) would help to define the upward limits of growth under this alternative.

4.1.4 Regulatory Requirements

Commercial, industrial, and residential land uses in Montana are subject to three principle types of local land use policy and/or regulations. These include growth policies (formerly comprehensive or master plans), zoning regulations and subdivision regulations. Descriptions of local land use policy and regulatory processes are located in Chapter 5.

In addition to local land use policy and regulatory requirements, activities conducted on Trust Lands would require compliance with a variety of other state and federal regulations. Principle regulations include the Clean Water Act, Clean Air Act, and the Montana Antiquities Act. DNRC staff administers the Montana Antiquities Act as it applies to land use decisions. DNRC consults with Montana Department of Environmental Quality for administration and compliance with the Clean Air and Water Acts.

All activities must comply with water quality standards and air quality standards as adopted by the State of Montana. Proposed projects are reviewed to determine whether compliance with these standards will be achieved. Projects authorized by DNRC may require monitoring (air and/or water) to ensure that the developer or the agency is meeting applicable standards. Compliance with the State Antiquities Act requires DNRC to identify cultural or paleontological resources on Trust Lands, evaluate the significance of those resources, and determine feasibility of limiting, avoiding, or mitigating impacts to these resources.

In circumstances where local land use policies do not address the breadth of public involvement or environmental analysis that DNRC must adhere to in making project level decisions under the Montana Environmental Policy Act (MEPA), DNRC

would review the project to address those elements. Detailed descriptions of site conditions and potential impacts would be completed on a project level basis for each land use proposal, whether generated by outside parties or DNRC through the funnel filtration process as described in Chapter 2.

4.1.5 Project Selection & Prioritization

Chapter 2, Section 3 describes a programmatic approach to the identification and selection of real estate opportunities on Trust Lands under each of the action alternatives. The approach is a systematic process that offers a filtration methodology for identifying lands that may ultimately be suitable for residential, conservation, commercial and/or industrial purposes. All Trust Lands would be “filtered” through a series of eight (8) processes to determine project level opportunities. The REMB would use an ID (Identification) Team approach to develop 1, 3, and 5 year project lists (refer to Figure 2.5). Under the existing program of the REMB (represented by Alternative A), the project selection and prioritization methodology is less structured. Project opportunities are more often reactive than proactive and project priorities are identified from annual meetings of a Commercial Development Working Group.

A series of maps are included in Appendix H that displays how a subset of lands is identified through the initial steps of the funnel filter analysis. In the NWLO, for example, there are 5 consecutive maps that demonstrate the filtering process. The first map displays all the trust lands in the NWLO. The second map displays only that subset of trust lands that have slopes less than 25% and outside the floodplain. The third map further removes trust land located within the grizzly bear recovery area. The fourth map looks at the remaining trust lands (after the initial filters described above) and then removes all but the lands identified as being “highest quantile” (see Table 2.6). The resulting map provides a visual indication of the general suitability of trust lands for development potential. The fifth map displays the location of existing residential uses in proximity to the remaining trust lands. This five map display is also shown for the SWLO. Single maps are included for the CLO and SLO to display the effects of steep slopes and floodplains. No maps are included for the ELO and NELO due to the low likelihood of development potential in those locations.

4.2 PREDICTED EFFECTS ON ALL AFFECTED ENVIRONMENTAL RESOURCES

4.2.1 Statewide Demographic Relationships

4.2.1.1 Direct and Indirect Impacts

- Alternative A – Current Program

- Industrial and Commercial Uses – The current program is primarily reactive to commercial and industrial opportunities. Current program operations (staffing and funding) would probably limit the ability of the REMB to fully participate in market forces. It is assumed that commercial and industrial uses on Trust Lands would be less than proportional (land ratios) to similar development on other lands. Development on Trust Lands would not be growth (population) inducing since the same level of development and population growth would occur whether or not Trust Lands share in that growth.
- Residential Uses – The current program is primarily reactive to residential opportunities. Current program operations (staffing and funding) would probably limit the ability of the REMB to fully participate in market forces. It is assumed that rural residential uses on Trust Lands would be less than proportional (land ratios) to similar development on other lands. Development on Trust Lands would not be growth (population) inducing since the same level of development and population growth would occur whether or not Trust Lands shared in that growth.
- Conservation – The current program is primarily reactive to conservation opportunities on Trust Lands. The lease and sale of development rights and conservation leases, licenses, and easements would continue and would likely increase somewhat, based upon market demand and interest. Some marketing could be used to help identify parties that might have some interest in purchasing conservation rights. Additional conservation lands may encourage, but would not directly contribute to, new growth in the State.
- Alternative B – Diversified Portfolio
 - Industrial and Commercial Uses – The operation of the REMB under Alternative B would be more proactive than reactive to commercial and industrial opportunities. Program operations (staffing and funding) would be improved to fully participate in market forces. It is assumed that commercial and industrial uses on Trust Lands would be proportional (land ratios) to similar development on other lands. Development on Trust Lands would not be growth (population) inducing since all alternatives assume that trust lands will be sharing in expected growth; not creating growth beyond what the market will absorb.
 - Residential Uses – The operation of the REMB under Alternative B would be more proactive than reactive to residential opportunities.

Program operations (staffing and funding) would be improved to fully participate in market forces. It is assumed that residential opportunities on Trust Lands would be proportional (land ratios) to those on other lands. Development on Trust Lands would not be growth (population) inducing since this alternative and others assume that trust lands will be sharing, to varying degrees, in expected community growth.

- Conservation Uses – Conservation opportunities would be pursued under this alternative. Land acreages with leased or purchased development rights would increase based upon market demand and interest. Marketing towards targeted organizations would be used to help focus interest on conservation opportunities. Additional conservation lands may encourage, but would not directly contribute to, new growth in the State.
- Alternatives B-1 – Diversified Portfolio – Conservation Priority – The program under Alternative B-1 would not differ from B with regard to the level of activity in the pursuit of residential, industrial/commercial, or conservation uses for Trust Lands. However, conservation uses (which would occur primarily on lands that have rural residential values) would reduce the number of acres placed in residential use. This would have the effect of directing rural residential development elsewhere in the market area. Additional conservation lands may encourage but would not directly contribute to new growth to the State.
- Alternative C – Focused Portfolio
 - Industrial and Commercial Uses – The operation of the REMB under Alternative C would be reactive and proactive to commercial and industrial opportunities. Program operations (staffing and funding) would be improved to fully participate in market forces. It is assumed that commercial and industrial uses on Trust Lands would be proportionally higher (land ratios) than what would occur on other lands. Development on Trust Lands would not be growth (population) inducing since the same level of development and population growth would occur whether or not Trust Lands shared in that growth.
 - Residential Uses – The operation of the REMB under Alternative C would be reactive and proactive to residential opportunities. Program operations (staffing and funding) would be improved to fully participate in market forces. It is assumed that residential opportunities on Trust Lands would be proportionally higher (land ratios) than what would occur on other lands. Development on

Trust Lands would not be growth (population) inducing since the same level of development and population growth would occur whether or not Trust Lands shared in that growth.

- Conservation Uses – Conservation opportunities would be pursued under this alternative. Land acreages with leased or purchased development rights would increase based upon market demand and interest. Marketing towards targeted organizations would be used to help focus interest on conservation opportunities. Additional conservation lands may encourage, but would not directly contribute to, new growth in the State.
- Alternative C-1 – Focused Portfolio – Conservation Priority
The program under Alternative C-1 would not differ from C with regard to the level of activity in the pursuit of residential, industrial/commercial, or conservation uses for Trust Lands. However, conservation uses (which would occur primarily on lands that have rural residential values) would reduce the number of acres placed in residential use. This would have the effect of directing rural residential development elsewhere in the market area. Additional conservation lands may encourage but would not directly contribute to new growth to the State.
- Alternative D – Focused Entitlements
The emphasis of Alternative D is to match or keep pace with local market conditions and to share proportionally in the expected growth as generally described for Alternative B. The added emphasis of this alternative on achieving improved land entitlements and outcome objectives is intended to minimize adverse environmental impacts through increased coordination with local regulatory review authorities and clear definition of lands that might be selected for developed uses. Through these processes, trust lands would be sharing in expected community growth on lands that are suitable and desirable for developed uses.

4.2.1.2 Cumulative Effects

The proposed alternatives would not create a demand for additional commercial, industrial, or residential uses. Rather, the program alternatives analyzed in the EIS would allow the REMB to participate in the existing growth market in the state. Development of commercial, residential, or industrial uses on Trust Lands would not necessarily stimulate or promote growth on other publically-owned (non Trust) lands. No population increase would occur beyond what is projected for general community growth.

4.2.1.3 Residual Adverse Effects

No residual adverse effects would result with “growth” (residential, commercial, industrial) on Trust Lands associated with any of the alternatives presented in this EIS. Growth would occur in accordance with land use policy and regulatory processes and MEPA analysis, as appropriate. An assumption is made that the same level of growth would occur, regardless (of whether it occurred on Trust Lands), since growth is a product of need and demand. In some situations, it could be demonstrated that Trust Lands may be better suited for growth and development than some non-Trust Lands. Population and economic conditions would not change under any of the alternatives.

4.2.1.4 Irretrievable and Irreversible Commitment of Resources

Implementation of the alternatives would not result in an irreversible or irretrievable commitment of resources. Compliance with local, state, and federal regulations and regulatory review processes would minimize the adverse effects of growth. There would be no additional demand on resources beyond what is projected for new growth in a particular land office region.

4.2.1.5 Short-Term Versus Long-Term Productivity

Trust Lands suitable in the near term for residential, commercial, conservation, and industrial uses would be suitable for similar uses in the long term. Market cycles provide for redevelopment or adaptive reuse of existing structures.

4.2.2 Real Estate Management Bureau

4.2.2.1 State-Wide Overview

The REMB of the TLMD would manage lands suitable for commercial, industrial, residential and conservation uses as described in Chapter 2 under all alternatives. This would include leasing and licensing lands for residential, commercial, industrial, and conservation uses. The REMB would also administer land sales, land exchanges, and land easements. Chapter 2 describes the current process for selecting projects that would continue under Alternative A, as well as the Funnel approach that would be used to select projects under all of the action alternatives (see Figure 2-4 in Chapter 2). Program emphasis, staffing, and funding resources would vary by alternative. Map Exhibits 4-1 and 4-2 display the general locations of trust lands that have been initially screened as having higher potential for rural residential and commercial/industrial uses (See Appendix C).

4.2.2.2 Direct and Indirect Impacts

- Alternative A – Current Program
 - Industrial and Commercial Uses – The current program is primarily reactive to commercial and industrial opportunities. Current program operations (staffing and funding) would probably limit the

ability of the REMB to fully participate in market forces. Staffing levels and staffing expertise would not appreciably change under this alternative. The availability of funding for improving land entitlements would probably remain constant to the current situation.

- Residential Uses – The current program is primarily reactive to residential opportunities. Current program operations (staffing and funding) would probably limit the ability of the REMB to fully participate in market forces. Staffing levels and staffing expertise would not appreciably change under this alternative. The availability of funding for improving land entitlements would probably remain constant to the current situation.
- Conservation Uses – The current program is primarily reactive to conservation opportunities on Trust Lands. The lease, license or sale of development rights would be an option if properly authorized by legislation. Conservation leases and licenses would be other mechanisms to accommodate conservation objectives.
- Alternative B – Diversified Portfolio
 - Industrial and Commercial Uses – The operation of the REMB under Alternative B would be more proactive than reactive to commercial and industrial opportunities. Program operations (staffing and funding) would be improved to fully participate in market forces. Staffing levels would increase by three FTEs (Professional Engineer, Lease Administrator, Surveyor) to help respond more quickly to market opportunities. Staffing expertise would be expanded to consider greater involvement with land use planning and commercial and industrial leasing. Additional funding beyond current levels would be necessary to improve entitlements to property. Approximately \$500,000 annually would be authorized as new expenditures for land entitlement improvements (infrastructure, zoning, annexation, etc).
 - Residential Uses – The operation of the REMB under Alternative B would be more proactive than reactive to residential opportunities. Program operations (staffing and funding) would be improved to fully participate in market forces. Staffing levels would increase (see above) to help respond more quickly to market opportunities. Staffing expertise would be expanded to consider greater involvement with land sales. Additional funding beyond current levels would be necessary to improve entitlements to property. Funding for improved land entitlements would not be in addition to the funding identified above.

- Conservation Uses – Conservation opportunities would be pursued under this alternative. Conservation lands would be in addition to the number of acres placed in developed use. Land acreages with leased or purchased development rights or conservation rights would increase based upon market demand and interest. Efforts to market, promote, and implement conservation opportunities would benefit from the increased staffing identified above.
- Alternative B-1 – Diversified Portfolio – Conservation Priority
The program under Alternative B-1 would not differ from B with regard to the level of activity in the pursuit of residential, industrial/commercial, or conservation uses for Trust Lands. Funding and staff requirements under Alternative B-1 would be similar to those required under Alternative B.
- Alternative C – Focused Portfolio
 - Industrial and Commercial Uses – The operation of the REMB under Alternative C would be proactive to commercial and industrial opportunities. Program operations (staffing and funding) would be improved to fully participate in market forces. Staffing levels would increase by one FTE (land Use Planner) over Alternative B to help respond more quickly to market opportunities. Staffing expertise would be expanded to consider greater involvement with land use planning and commercial and industrial leasing. Approximately \$1 million annually would be authorized as new expenditures for land entitlement improvements (infrastructure, zoning, annexation, etc).
 - Residential Uses – The operation of the REMB under Alternative C would be proactive to residential opportunities. Program operations (staffing and funding) would be improved to fully participate in market forces. Staffing levels would increase (see above) to help respond more quickly to market opportunities and staffing expertise would be expanded to consider greater involvement with land sales. Additional funding (see above) would be necessary to improve entitlements to property.
 - Conservation Uses – Conservation opportunities would be pursued under this alternative. Conservation lands would be in addition to the number of acres placed in developed use. Land acreages with leased or purchased development rights or conservation rights would increase based upon market demand and interest. Land acreages with leased or “purchased development rights” would increase based upon market demand and interest. Efforts to

market, promote, and implement conservation opportunities would benefit from the increased staffing identified above.

- **Alternative C-1 – Focused Portfolio – Conservation Priority**
The program under Alternative C-1 would not differ from C with regard to the level of activity in the pursuit of residential, industrial/commercial, or conservation uses for Trust Lands. Funding and staff requirements under Alternative C-1 would be similar to those required under Alternative C.
- **Alternative D – Focused Entitlements**
The effect that Alternative D might have on the Real Estate Management Bureau is as generally described for Alternative B. Staffing and funding needs are identical as is the desire to be proactive in the community planning process. This alternative would place additional emphasis on community planning and achieving improved entitlements on land before or concurrent with project initiation. To accomplish these objectives, staffing assignments and financial support would correspond to project priorities identified through the project selection process.

4.2.2.3 Cumulative Effects

There would be no cumulative effects to other state agencies from the proposed administration of the REMB under any of the alternatives. To the extent possible, new staff for the REMB would be achieved without additional FTEs through adjustment of existing staff assignments within the TLMD.

4.2.2.4 Residual Adverse Effects

There would be no residual adverse effects from the proposed administration of the REMB. The program would be operated to serve the financial interest of the Trusts while considering environmental resources under any of the alternatives

4.2.2.5 Irretrievable and Irreversible Commitment of Resources

There would be no irretrievable and irreversible effects from the proposed administration of the REMB under any of the alternatives.

4.2.2.6 Short Term versus Long Term Productivity

The TLMD is a first and foremost an asset management organization. Under all alternatives, as resources allow, it would evaluate the entire land base of Trust Lands and choose those portfolio and fiscal options that serve the long-term interests of the trusts.

4.2.3 Economics

4.2.3.1 Statewide Overview

The TLMD manages lands under four broad categories of use including forest management, agriculture, grazing and real estate. The largest share of income is from agriculture and grazing due to the vast acreages involved in those uses. Income from uses managed by the REMB contributes approximately 4 percent to the total annual trust revenue. However, on revenue per acre basis, commercial, industrial, residential and conservation uses generate over \$54 per acre, dwarfing agriculture and grazing at \$2.80 per acre. Although the acreage of new real estate lands is expected to remain under 1 percent of the total Trust Land acreage, the percentage of revenue from commercial, residential, industrial and conservation uses is expected to increase under all alternatives.

An economic analysis of each proposed alternative was prepared by Jackson (2004) and is included in Appendix D. Information in the report includes statistics related to revenue, expenses, rates of return, taxes, jobs, and personal income.

4.2.3.2 Direct and Indirect Impacts

- **Alternative A – Current Program**
Gross annual revenue under this alternative would be approximately \$3.8 million. This reflects income from leases and interest from the permanent trust fund. Estimated average rates of return for Alternative A would be approximately 2.76%.
- **Alternative B – Diversified Portfolio**
Gross annual revenue under this alternative would be approximately \$4.7 – \$5.3 million. Estimated average rates of return from Alternative B would be 4.66 – 5.13 percent. The latter higher rate of return would be achieved by funding improvements to enhance land entitlements.
- **Alternative B-1 – Diversified Portfolio – Conservation Priority**
Gross revenue under this alternative would be less than under Alternative B. While the REMB would seek to obtain residential value through the sale or lease of development and conservation rights, the value of those rights would vary somewhat depending on associated entitlements. The conservation market and legislative authorizations would ultimately decide the amount and mix of conservation strategies. In a general sense, annual rent (lease or license) for development or conservation rights would generate a higher rate of return as compared to permanent disposition of rights through a single purchase. If leasing were the predominant tool for securing the rights, the rate of return under B-1 would be slightly less than that of Alternative B. The rate of return could be substantially less than Alternative B if the predominant

tool for securing development and conservation rights is accomplished with permanent disposition.

- **Alternative C – Focused Portfolio**
Gross annual revenue under this alternative would be approximately \$6.4 – 7.8 million. Estimated average rates of return from Alternative C would be 5.48 – 6.27 percent. The latter higher rate of return would be achieved by funding improvements to enhance land entitlements.
- **Alternative C-1 – Focused Portfolio – Conservation Priority**
Gross revenue under this alternative would be slightly less than under Alternative C. Calculation of the rate of return for conservation emphasis depends on the method of disposition as per the logic discussed in B-1, above. In general, costs of Alternative C-1 remain fixed so if the income were reduced from the loss of residential revenue (9,467 acres less than Alternative C) then the rate of return would be correspondingly reduced.
- **Alternative D – Focused Entitlements**
The revenue and rates of return that might be applicable to Alternative D would reflect the range of values between those of Alternative B and Alternative C. Improved entitlements on land would achieve these higher values.

4.2.3.3 Cumulative Effect

Increasing commercial, industrial and residential uses would create additional tax benefits to local communities and increase revenue to the schools of Montana under all alternatives.

4.2.3.4 Residual Adverse Effects

There would be no residual adverse effects from increased revenue to the Trusts under any of the alternatives.

4.2.3.5 Irretrievable and Irreversible Commitment of Resources

There would be no irretrievable and irreversible effects under any of the alternatives.

4.2.3.6 Short Term versus Long Term Productivity

Increased revenue would be from annual lease payments and interest from the permanent fund. Revenue objectives are intended to promote the long-term interests of the various Trusts through a combination of income strategies and general portfolio management within all the bureaus of the TLMD. All permanent dispositions of land are subject to a project level MEPA analysis that would help evaluate short versus long-term “productivity”.

4.2.4 Real Estate Transactions and Authorizations

4.2.4.1 Statewide Overview

Under 77-1-204, MCA the state can sell, participate in land banking, purchase, lease or exchange Trust Lands when, in the State Board of Land Commissioner's judgment, it is advantageous to do so. These transactions and authorizations are detailed in Chapter 3, Section 3.2.4.

4.2.4.2 Direct and Indirect Impacts

- Alternative A – Current Program
 - Industrial and Commercial Uses – Under Alternative A, commercial and industrial development would generally not make use of the REMB land banking program. Land exchanges would occur primarily in response to inquiries. However, if the staff is able to identify a clear advantage in pursuing a land exchange, the Bureau may initiate a transaction as resources allow. In most cases the REMB would lease rather than sell land associated with industrial and commercial developments.
 - Residential Uses – Under Alternative A, residential development would generally not make use of the REMB land banking program. Land exchanges would occur primarily in response to inquiries. However, if the staff is able to identify a clear advantage in pursuing a land exchange, the Bureau may initiate a transaction as resources allow. Land sales would not be a high priority. However, objectives related to new residential opportunities would mostly be achieved through “sale” as opposed to leasing.
 - Conservation Uses – Under Alternative A, conservation uses would be achieved primarily through conservation leases, licenses, and easements or through the lease, license, or sale of development rights if properly authorized by legislation.
- Alternatives B – Diversified Portfolio and Alternative B-1 – Conservation Priority
 - Industrial and Commercial Uses – Under Alternative B, the REMB would use land exchanges on a limited basis to acquire lands with higher commercial and industrial revenue generating potential. In addition, the Bureau would also, to some extent, use land banking to acquire lands that are well positioned to take advantage of future revenue generation and lands that have an existing revenue stream (existing revenue producing activities on the land). These might include active commercial and industrial enterprises.

Under Alternative B, the REMB would respond to inquiries related to land exchanges. In addition, the Bureau would seek land exchange opportunities that would result in better present and future income. The REMB would also consider land exchanges that would result in a mixed acquisition wherein equal acres would be achieved in addition to other property that would have immediate income potential.

- Residential Uses – Under Alternative B, land sales and land banking would be the primary tool to achieve the residential objectives. For example, if 40 acres of Trust Lands are sold at residential land values, then that 40 acres would be credited towards the share of residential growth on Trust Lands.
- Conservation Uses – Under Alternatives B and B-1, conservation uses would be achieved primarily through conservation leases, licenses, and easements or through the lease, license, or sale of development rights if properly authorized by legislation.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – The REMB would use Land Banking to capture existing properties with high revenue streams. The Bureau would also use Land Banking to position itself in areas of high growth so that it can easily respond to opportunities in the market to maximize its revenue. The REMB would consider those land exchanges that would result in the acquisition of both undeveloped land and land with improvements that provide an existing income stream.
 - Residential Uses – Most of the residential objectives for new residential growth would be accomplished through land sales. Land sales under Alternative C would be considered in conjunction with joint ventures and partnerships between the REMB and private and/or public entities. Under this approach, the joint venture/partnerships would make physical improvements to the land and seek those land use designations that would improve overall marketability. Once the maximum entitlements are achieved, the land would be sold and the partners would share in the profits associated with the improvements.
 - Conservation Uses -- Under Alternatives C and C-1, conservation uses would be achieved primarily through conservation leases, licenses, and easements or through the lease, license, or sale of development rights if properly authorized by legislation.

4.2.4.6 Short Term versus Long Term Productivity

Under all alternatives, the REMB would evaluate the entire land base of Trust Lands and would utilize those land transactions that serve the long-term interests of the Trusts. The REMB is only one Bureau with revenue-generating objectives for the trust. A highest and best use analysis would determine project level opportunities for the REMB.

4.2.5 Geology and Soil

4.2.5.1 Statewide Overview

Geological resources would not be affected by the Alternatives being evaluated in this Programmatic EIS and therefore, geological resources are not evaluated further in this section. Soil resources on Trust Lands vary according to setting and parent material. Potential impacts from implementation of the Alternatives to soil resources would be similar for all land office geographic areas.

Descriptions of existing geological and soil resources on Trust Land is included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.5.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would have no negative affect on soil resources.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of the current land use on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses. Potential effects on the soil resource include compaction, stockpiling (loss of biological activity, reduction in soil fertility), and soil loss due to handling and soil salvage. Depending on the vegetative condition, existing erosion, or general soil condition on specific lands, conversion to industrial and/or commercial uses may or may not result in an increase in sediment and soil loss during construction activity and subsequent operations of facilities. For lands where soil compaction, loss, and reduction in fertility or sediment contribution to waterways is occurring, conversion of use to industrial and/or commercial could result in a reduction in sediment loss as a consequence of paving or covering disturbance areas. For other lands, conversion could result in construction activities that would increase land disturbance on a

specific tract, thereby increasing exposure of bare-mineral soil to wind and water erosion.

Commercial and industrial development would likely occur within areas where specific sediment control, best management practices, and construction management controls must be complied with by the developer in accordance to city, county, state, and/or federal permit requirements. Short-term soil losses would occur during construction. However, compliance with local regulatory requirements would reduce losses to permissible levels.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to Residential uses. Developers of specific lands would be required to comply with applicable regulations and requirements pertaining to control of sediment and soil loss during construction of residential properties.
- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in an increase in the number of acres of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to soil resources would be similar to those described under Alternative A.
 - Residential Uses – Alternatives B and B-1 would result in an increase in the number of acres converted to Residential use under the REMB Leasing program as compared to Alternative A. (Under B-1, the number of acres converted to residential use could be reduced by as much as half of the projected amount.) Impacts to Trust Land as a result of conversion to Residential under this alternative would be similar to impacts described under Alternative A.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives C and C-1 would result in an increase in the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternatives A, B and B-1. Potential impacts to soil resources would be similar to those described under Alternatives A, B and B-1.

- Residential Uses – Alternatives C and C-1 would result in an increase in the number of acres converted to Residential use under the REMB Leasing program as compared to Alternatives A, B and B-1. (Under C-1, the number of acres converted to residential use could be reduced by as much as half of the projected amount.) Impacts to Trust Land as a result of conversion to Residential under this alternative would be similar to impacts described under Alternatives A, B and B-1.
- Alternative D – Focused Entitlements
The effects on “geology” with implementation of Alternative D are as generally described for Alternative C in this section. Developed uses would remain a minor component of the trust land portfolio and compliance with local and state regulations would minimize the occurrence of developed uses in sensitive locations. Specific projects would comply with mitigation requirements of local and state permits/regulations. Outcome requirements for new uses would seek to achieve desired land use and environmental objectives, such as clustering of residential uses in rural locations.

4.2.5.3 Cumulative Effects

Implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to soil resources for any of the REMB Lease designated land uses described above. The Alternatives would not create a demand for conversion of current land use to commercial, industrial, conservation or residential uses. Rather, the program alternatives analyzed in the EIS would allow the REMB to participate in the existing growth market in the state.

4.2.5.4 Residual Adverse Effects

No residual adverse effects to soil resources are anticipated to result from implementation of any of the Alternatives evaluated in this EIS. Compliance with local zoning and subdivision laws and state and federal laws for controlling soil loss and sedimentation of waterways would reduce impacts to permissible levels.

4.2.5.5 Irretrievable and Irreversible Commitment of Resources

Implementation of any of the Alternatives would not result in an irreversible or irretrievable commitment of soil resources. Compliance with local, state, and federal requirements would limit soil losses associated with the REMB Leasing program.

4.2.5.6 Short Term versus Long Term Productivity

Short-term impacts to the soil resource include impacts described above. These short-term impacts to soil are not expected to impact long-term productivity of the soil resource on Trust Lands included in the program.

4.2.6 Water Resources

4.2.6.1 Statewide Overview

Surface water resources in Montana range from streams originating in the mountains in western Montana to lakes and rivers flowing westward and eastward from the Continental Divide. Water quality varies depending on geology, water use, and treatment efficacy. Headwater systems in the mountains of the state generally exhibit high quality water. As water flows into larger rivers and lake systems, the water quality changes in response to increases in dissolved solids as a result of water use and return flow to river systems.

Groundwater quantity and quality varies across the state as a function of geologic setting, groundwater withdrawal, water use, and infiltration and recharge to aquifer systems. Groundwater is generally considered to be of high quality in the mountainous areas of the state where recharge is from precipitation and high quality surface water systems. Groundwater in some areas of the state reflects the geologic setting and can contain elevated levels of dissolved solids and trace elements.

Descriptions of existing water resources in Montana and on Trust Land is included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.6.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would have no negative affect on water resources.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of the current land use on selected Trust Land lands (agriculture, grazing, or timber) to industrial and/or commercial uses. Potential effects on water resources from conversion to commercial and industrial land uses include changes in water quality as result of increased runoff (i.e., increase dissolved solids concentration from exposure to parking lots, roofs, or paved areas), diversion of surface water flow, increase in concentration of suspended sediment (i.e., during construction periods), reduced recharge to groundwater, changes to groundwater quality from infiltration systems (i.e., sites where municipal stormwater systems are not available), and an increase in volume of water reporting to municipal or local water treatment systems.

Industrial and commercial activities would require that additional water supply be provided to meet the demand for water associated with these activities. Increases in acreage converted to these uses could affect capacities of current water supply systems, sewage treatment systems, and stormwater handling systems for municipalities.

Depending on vegetative condition, existing erosion, and general soil condition on specific lands, conversion to industrial and/or commercial uses may or may not result in an increase in sediment and soil loss during construction activity and subsequent operations of facilities. For lands where soil compaction, loss, and reduction in fertility or sediment contribution to waterways is occurring, conversion of use to industrial and/or commercial could result in a reduction in sediment loss as a consequence of paving or covering disturbance areas. For other lands, conversion could result in construction activities that would increase land disturbance on the specific tract, thereby increasing exposure of bare-mineral soil to wind and water erosion.

Commercial and industrial development of these lands would likely occur within locally regulated areas where specific sediment control, design standards, and construction management controls must be complied with by the developer. Short-term impacts to water quality could occur during construction; however, compliance with stormwater regulations and state water quality standards would reduce impacts to permissible levels.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to residential uses. Potential effects to water resources from residential development include changes in surface water flow; changes in groundwater quality from septic systems (i.e., increased nitrate concentration) where municipal sewage treatment is not available; increase in withdrawal of groundwater for domestic use possibly resulting in lowering water tables locally (in locations where a municipal water source is not available); increase in suspended sediment in surface water (unpaved roads and during construction activities); fertilizer from increased lawn areas; and an increase in surface water runoff from roads and developed areas.

Developers of residential properties are required to comply with applicable subdivision and sanitation regulations, which often include compliance with certain design guidelines and mitigation requirements.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in doubling the number of acres of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to water resources would be similar to those described under Alternative A.
 - Residential Uses – Alternative B would result in doubling the number of acres converted to residential use under the Real Estate Management Program as compared to Alternative A. Under Alternative B-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount. Impacts to water resources on Trust Land as a result of conversion to Residential under this alternative would be similar to impacts described under Alternative A.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives C and C-1 would result in doubling the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternatives B and B-1. Potential impacts to water resources would be similar to those described under Alternative A.
 - Residential Uses – Alternative C would result in doubling the number of acres converted to Residential use under the Real Estate Management Program as compared to Alternative B. Under Alternative C-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount. Impacts to water resources on Trust Land as a result of conversion to Residential under this alternative would be similar to impacts described under Alternative A.
- Alternative D – Focused Entitlements

The effects on “water resources” with implementation of Alternative D are as generally described for Alternative C in this section. Developed uses would remain a minor component of the trust land portfolio and compliance with local and state regulations would minimize the occurrence of developed uses in sensitive locations. Specific projects would comply with mitigation requirements of local and state permits/regulations. Outcome requirements for new uses would seek to achieve desired land use and environmental objectives, such as

clustering of residential uses in rural locations. Wetlands and floodplain areas would generally be off-limits to most types of developed uses.

4.2.6.3 Cumulative Effects

Implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to water resources for any of the designated land uses described above. Continuation of the Current Program (Alternative A) or implementation of any of the action Alternatives would not create additional demand for conversion of current land use to commercial, industrial, or residential uses. Rather, the program alternatives analyzed in the EIS would allow Montana's Trust Lands to participate in the existing growth market in the state.

4.2.6.4 Residual Adverse Effects

No residual adverse effects to water resources are anticipated to result from implementation of any of the Alternatives evaluated in this EIS. Compliance with local zoning and subdivision and state and federal laws for controlling soil loss and sedimentation of waterways would reduce impacts to water resources to permissible levels. Compliance with water quality standards associated with commercial, industrial, and residential use of land would result in activities meeting applicable effluent limitations.

4.2.6.5 Irretrievable and Irreversible Commitments of Resources

Implementation of the Proposed Action and alternatives would not result in an irreversible or irretrievable commitment of water resources. Compliance with local, state, and federal requirements would limit water impacts associated with the REMB program.

4.2.6.6 Short Term versus Long Term Productivity

Short-term impacts to water resource include impacts described above. These short-term impacts to water resources are not expected to impact long-term productivity of the water resources on Trust Lands included in the program.

4.2.7 Fisheries

4.2.7.1 Statewide Overview

Fisheries on Trust Lands vary according to quantity and quality of water resources available to a particular species. Cold-water fisheries are dominant in the Northwest, Southwest, and Central Land Office areas; warm water fisheries are primarily found in the Northeast, East, and South Land Office areas. Potential impacts from implementation of any of the Alternatives to fisheries resources would likely result from increased sediment contribution to surface water from activity on selected lands. Potential effects of this sediment load are expected to be greater in the

Northwest, Southwest, and Central Land Offices than in the Northeast, East, and South Land Office areas since these areas have a higher percentage of developable land in proximity surface water. In addition, cold water fisheries are also less tolerant to sediment load increases than warm water species.

Special status fish species including bull trout, Yellowstone and westslope cutthroat trout, arctic grayling, and white sturgeon occur in the Northwest, Southwest, and Central Land Office areas. Potential sediment load increases resulting from development in these areas could have impacts to these species. Pallid sturgeon are found in the Missouri River and larger tributaries of the Northeast and East Land Office areas, which have fewer developable lands and therefore would likely experience less development activity (sediment loading) affecting this species.

Descriptions of existing fisheries resources on Montana and Trust Land is included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.7.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would have no negative affect on fisheries resources.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of current land uses on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses. Potential effects on fisheries resources include a threat to spawning from increased sediment and contaminant loads and increased nutrients and reduced oxygen levels in surface water. Contaminant loading could increase potential for analyte concentrations to exceed water quality standards.

Depending on the vegetative or general surface condition on specific lands, conversion to industrial and/or commercial uses may or may not result in an increase in sediment load to surface water during construction activity and subsequent operations of facilities. For lands where sediment contribution to surface waterways is occurring, conversion to industrial and/or commercial use could result in a reduction in sediment load as a consequence of paving or covering disturbance areas. Conversely, storm water runoff from engineered landscapes, and areas covered with asphalt or concrete paving could increase concentrations of contaminants from oil and grease, antifreeze, and fertilizers. Potential impacts to fisheries resources could also occur from increased sediment,

nutrients, fertilizers, and other contaminants in return flow from irrigated crops and runoff from feedlots.

Where commercial and industrial development occurs within the jurisdiction of local municipalities, specific best management practices for construction management, sediment, and storm water runoff controls would be required of a developer. Runoff from the tract would report to storm water treatment facilities and as such, would be treated to meet effluent standards. In locations where storm water treatment is not available, infiltration into subsurface would reduce sediment loading to surface water. Short-term sediment losses would occur during construction; however, compliance with local zoning requirements would reduce losses to permissible levels.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to residential uses. Potential effects to fisheries from residential development include changes in surface water flow; increase in suspended sediment in surface water (unpaved roads and construction activities); and an increase in surface water runoff from roads and developed areas.

Developers of residential lands would be required to comply with applicable regulations and requirements pertaining to control of sediment, storm water runoff control during construction of residential properties, and use of best management practices.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in an increase in acres of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to fisheries would be similar to those described under Alternative A.
 - Residential Uses – Alternatives B and B-1 would result in an increase in the number of acres converted to residential use under the Real Estate Management Program as compared to Alternative A. Alternative B-1 would reduce the number of acres converted to residential use by up to one half. Impacts to fisheries resources as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A. However, increased sediment and soil loss could result from development of

residential properties at levels associated with Alternative B as compared to Alternatives B-1 or A.

- Alternative C – Focused Portfolio
 - Industrial and Commercial Uses – Implementation of Alternative C would result in an increase in the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternatives B and B-1. Potential impacts to fisheries would be similar to those described under Alternative A.
 - Residential Uses – Alternatives C would result in an increase in the number of acres converted to residential use under the Real Estate Management Program as compared to Alternatives A, B and B-1. (Under Alternative C-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount.) Impacts to fisheries as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A.
- Alternative D – Focused Entitlements

The effects on “fisheries” with implementation of Alternative D are as generally described for Alternative C in this section. Developed uses would remain a minor component of the trust land portfolio and compliance with local and state regulations would minimize the occurrence of developed uses in sensitive locations. The funnel filter process would specifically exclude projects in close association with core bull trout streams. Specific projects would comply with mitigation requirements of local and state permits/regulations. Outcome requirements for new uses would seek to achieve desired land use and environmental objectives, such as clustering of residential uses in rural locations.

4.2.7.3 Cumulative Impacts

Assuming that development is conducted in accordance with applicable storm water regulations and Best Management Practices are implemented to control sediment loss, implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to fisheries resources for any of the Real Estate Management Program designated land uses described above. None of the Alternatives would create a demand for conversion of current land use to commercial, industrial, or residential uses. Rather, the program alternatives analyzed in the Programmatic EIS would allow Montana to participate in the existing real estate growth market in the state.

4.2.7.4 Residual Adverse Impacts

No residual adverse effects to fisheries are anticipated to result from implementation of any of the Alternatives evaluated in this EIS. Compliance with local zoning and subdivision laws and state and federal laws for controlling sedimentation and contamination of waterways and storm water runoff would reduce impacts to meet applicable standards that protect fish and aquatic resources.

4.2.7.5 Irretrievable and Irreversible Commitment of Resources

Implementation of any of the Alternatives would not result in an irreversible or irretrievable commitment of fisheries resources. Compliance with local, state, and federal requirements would limit impacts to fisheries associated with the Real Estate Management Program.

4.2.7.6 Short Term versus Long Term Productivity

Short-term impacts to the fisheries resource include impacts described above. These short-term impacts to fish are not expected to impact long-term productivity of fisheries resources on Trust Lands included in the program.

4.2.8 Wildlife

4.2.8.1 Statewide Overview

Over 650 vertebrate wildlife and 390 bird species have been recorded in Montana. Wildlife occurring on Trust Lands vary according to density and type of vegetation, quantity and quality of water, climatic, and geomorphic conditions. Each Land Office area supports diverse populations of game animals, furbearers, rodents, upland game birds, raptors, waterfowl, and migratory birds. The Montana Natural Heritage Program lists 161 species of special concern including federally listed threatened and endangered species. Each Land Office area is home to various numbers of special status species.

Potential impacts from implementation of any of the Alternatives to wildlife resources could include displacement of individuals to adjoining undeveloped areas; loss of certain individuals; increase in urban/suburban wildlife populations; increased wildlife/human interaction; direct loss of wildlife habitat due to land disturbance/construction activity; elimination of cover (nesting, hiding, thermal), breeding sites and forage; and a potential increase in wildlife mortality due to vehicle and powerline (birds) collisions.

Potential land development under all alternatives is projected to affect more land in western Montana (Northwest, Southwest, and Central Land Office areas [30,524 acres total]) than eastern Montana (Northeast, East, and South Land Office areas [3,747 acres total]). Potential impacts to wildlife and two endangered species (grizzly bear and gray wolf) occurring in western Montana Land Office areas would be

mitigated by the greater amount of federal land available to provide respective species habitat that cannot be developed. Federal land in western Montana Land Office areas totals approximately 17.8 million acres versus 9.3 million acres in eastern Montana Land Office areas. The funnel filter process generally excludes most development activities within the grizzly bear recovery area of a Habitat Conservation Plan.

Descriptions of existing wildlife resources on Montana and Trust Land is included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.8.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would have no negative affect on wildlife resources.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of current land uses on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses.

Potential effects on wildlife resources include displacement to adjoining undeveloped lands; loss of certain individuals; increase in urban/suburban wildlife populations and increased wildlife/human interaction; direct loss of wildlife habitat due to land disturbance/construction activity could eliminate cover (nesting, hiding, thermal), breeding sites and forage; and potential increase in wildlife mortality due to vehicle and power line (birds) collisions.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to Residential uses. Potential effects to wildlife from residential development would be similar to those described for commercial/industrial use. However, residential development would likely occur on the urban fringe where some wildlife species (deer, bears, and mountain lions) are becoming habituated to human activity and would continue to inhabit suburban residential areas.

Developers of residential lands would be required to comply with applicable regulations and requirements pertaining to special status species prior to development of residential properties.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in an increase in the number of acres of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to wildlife from implementation of Alternatives B and B-1 would be similar to those described under Alternative A.
 - Residential Uses – Alternatives B and B-1 would result in an increase in the number of acres converted to Residential use under the Real Estate Management Program as compared to Alternative A. Alternative B-1 would reduce the number of acres placed in residential use by up to one half. Impacts to wildlife resources as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A. However, the increased number of residential areas would increase the amount of urban-wildland interface. Increased amount of urban fringe development would likely increase the number of encounters between humans and wildlife.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives C and C-1 would result in an increase in the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternatives B and B-1. Potential impacts to wildlife resources would be similar to those described under Alternative A.
 - Residential Uses – Alternatives C and C-1 would result in an increase in the number of acres converted to Residential use under the Real Estate Management Program as compared to Alternatives A, B and B-1. Alternative C-1 would reduce the number of acres placed in residential use by up to one half. Impacts to wildlife resources as a result of conversion to residential use under this alternative would be a function of the increased number of acres of urban-wildland interface that would result. Any increase in the urban-wildland areas could increase the contact between humans and wildlife. Potential impacts to wildlife resources would be similar to those described under Alternative A.
- Alternative D – Focused Entitlements

The effects on “wildlife” with implementation of Alternative D are as generally described for Alternative C in this section. Developed uses

would remain a minor component of the trust land portfolio and compliance with local and state regulations would minimize the occurrence of developed uses in sensitive locations. Specific projects would comply with mitigation requirements of local and state permits/regulations. Outcome requirements for new uses would seek to achieve desired land use and environmental objectives, such as clustering of residential uses in rural locations.

4.2.8.3 Cumulative Effects

Implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to wildlife resources for any of the Real Estate Management Program designated land uses described above. The Alternatives would not create a demand for conversion of current land use to commercial, industrial, or residential uses; rather, the program alternatives analyzed in the EIS would allow the REMB to participate in the existing real estate growth market in the state.

To the extent that eligible Trust Lands are located in areas where wildlife use is high, conversion of these lands may result in creating an additive impact associated with human-wildlife contacts.

4.2.8.4 Residual Adverse Effects

No residual adverse effects to wildlife are anticipated to result from implementation of any of the Alternatives evaluated in this EIS. Compliance with state and federal laws concerning special status species would reduce impacts to permissible levels.

4.2.8.5 Irretrievable and Irreversible Commitments of Resources

Implementation of any of the Alternatives would not result in an irreversible or irretrievable commitment of wildlife resources. Compliance with state and federal requirements would limit impacts to special status species associated with the Real Estate Management Program.

4.2.8.6 Short Term versus Long Term Productivity

Short-term impacts to wildlife resources include impacts described under Alternative A above. These short-term impacts to wildlife are not expected to impact long-term productivity of wildlife resources on Trust Lands included in the program.

4.2.9 Reptiles and Amphibians

4.2.9.1 Statewide Overview

The Montana Natural Heritage Program lists 16 species of amphibians and 17 species of reptiles that occur in Montana. Amphibians and reptiles do not produce enough metabolic heat to maintain body temperature higher than their environment

("cold-blooded"). Their dependence on the temperature of the environment prevents them from using some habitats and necessitates hibernation through winter months.

Amphibians are usually associated with moist habitats (wetlands), many are aquatic or semi-aquatic, and all breed in water. Amphibians are common and widely distributed across Montana. There are five amphibian species of concern of which, some or all occur in each land office area.

Reptiles include turtles, snakes, and lizards. Reptiles are widely distributed and occur in nearly all habitat types across Montana. The Montana Natural Heritage Program lists two turtles, three lizards, and four snakes as species of special concern of which, some or all occur in each land office area.

Potential impacts from implementation of any of the Alternatives to amphibians and reptiles include displacement to adjoining undeveloped areas; loss of certain individuals; and direct loss of suitable habitat due to land disturbance/construction activity that eliminates cover, breeding areas, and forage. Potential impacts to amphibians and reptiles are not distinguishable by geographic land office area.

Descriptions of existing amphibians and reptiles on Montana and Trust Land are included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.9.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would have no negative affect on reptiles and amphibians.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of current land uses on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses.

Amphibian and reptile species with low mobility would likely die during initial land disturbance activities (construction). Species with greater mobility would be displaced to adjacent habitat, if available. Some species may reestablish on the tract after habitat is restored or suitable habitat created.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to Residential uses. Potential effects to amphibians and reptiles from residential development would be similar to those

described for commercial/industrial use. Developers of residential lands would be required to comply with applicable regulations and requirements pertaining to species of special concern prior to development of residential properties.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in an increase in the number of acres of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to amphibians and reptiles would be similar to those described under Alternative A.
 - Residential Uses – Alternatives B and B-1 would result in an increase in the number of acres converted to Residential use under the Real Estate Management Program as compared to Alternative A. Alternative B-1 could reduce the number of residential acres developed by as much as one half. For those species that are sufficiently mobile, movement to adjacent undeveloped land would reduce impacts associated with increased residential development. Impacts to amphibians and reptiles as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternative C and C-1 would result in an increase in the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternative B. Potential impacts to amphibians and reptiles would be similar to those described under Alternative A.
 - Residential Uses – Alternatives C and C-1 would result in an increase in the number of acres converted to Residential use under the Real Estate Management Program as compared to Alternative B. For those species that are able to move to adjacent, undeveloped areas, potential impacts would be minimal. Impacts to amphibians and reptiles as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A.
- Alternative D – Focused Entitlements
The effects on “reptiles and amphibians” with implementation of Alternative D are as generally described for Alternative C in this

section. Developed uses would remain a minor component of the trust land portfolio and compliance with local and state regulations would minimize the occurrence of developed uses in sensitive locations. Specific projects would comply with mitigation requirements of local and state permits/regulations. Outcome requirements for new uses would seek to achieve desired land use and environmental objectives, such as clustering of residential uses in rural locations and avoidance of wetland locations.

4.2.9.3 Cumulative Effects

Implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to amphibians and reptiles for any of the Real Estate Management Program designated land uses described above. The Alternatives would not create a demand for conversion of current land use to commercial, industrial, or residential uses. Rather, the program alternatives analyzed in the EIS would allow the REMB to participate in the existing real estate growth market in the state.

4.2.9.4 Residual Adverse Effects

No residual adverse effects to amphibians and reptiles are anticipated to result from implementation of any of the Alternatives evaluated in this EIS. Compliance with state and federal laws concerning species of special concern would reduce impacts to permissible levels.

4.2.9.5 Irretrievable and Irreversible Commitment of Resources

Implementation of the any of the Alternatives would not result in an irreversible or irretrievable commitment of amphibians and reptiles. Compliance with state and federal requirements would limit impacts to species of special concern associated with the Real Estate Management Program.

4.2.9.6 Short Term versus Long Term Productivity

Short-term impacts to amphibians and reptiles include impacts described above. These short-term impacts to amphibians and reptiles are not expected to impact long-term productivity of amphibians and reptiles on Trust Lands included in the program.

4.2.10 Vegetation

4.2.10.1 Statewide Overview

Vegetation communities in Montana are diverse due to the range of climatic conditions, geology, and topographic settings. These communities range from spruce-fir and cedar-hemlock forests in the Northwest Land Office to grasslands and juniper woodland in the Southeast Land Office. Private and Trust Land that can

support agricultural and grazing practices has been converted from its natural state to enable these activities to occur. Other areas have been set-aside in their natural state as wilderness areas or parklands.

Noxious weeds are present in all counties in Montana. The estimated weed infestation rate in Montana is 9 percent per year.

No endangered plant species are known to occur in Montana; however, two threatened species occur in the state and on Trust Land in the Northwest Land Office and in the Southwest and Central Land Office areas. Each land office area contains rare plant species unique to that region and some species occupy more than one region.

Descriptions of vegetation resources in Montana and on Trust Land are included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.10.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would have no affect on vegetation.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of the current land use on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses. Potential effects on vegetation resources on Trust Lands from conversion to commercial and industrial land uses include:
 - Removal of vegetative cover during construction activities
 - Decrease in vegetative cover in areas where pavement or road building occurs
 - Decrease in diversity in vegetation on lands where primary use was timber or grazing
 - Change in species to engineered or designed landscape species.

Commercial and industrial development of these lands would likely occur within locally regulated areas where specific landscaping requirements may apply. Subdivision requirements, in particular, would address issues of vegetative removal and landscaping. Developers would also be required to avoid impacting threatened, endangered, and special status species under local regulatory processes.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to residential uses. Trust Lands in the Northwest, Central,

and Southwest Land Office areas most attractive for residential development are typically timbered lands. As such, conversion of timber lands to residential would likely result in a decrease in forest canopy and increase the amount of sunlight reaching the forest floor. This change could result in a change in snow depth, runoff characteristics, and understory growth locally. Increased emphasis on fire suppression on former timber lands converted to residential could result in reduction in the effects of fire on controlling forest health, understory growth, and fuel load. The potential to impact special status species would exist though mitigation and/or avoidance measures would be implemented to reduce or eliminate potential effects.

Depending on the status of weed infestation on Trust Lands selected for conversion to residential use, noxious weed infestations could increase in response to land disturbance, construction, and vehicle movement within specific lands. Use of noxious treatment methods to control or eradicate infestations would be the responsibility of individual homeowners within a tract unless organized weed control efforts are developed.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in doubling the number of acres of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to vegetation resources would be similar to those described under Alternative A.
 - Residential Uses – Alternative B would result in doubling the number of acres converted to residential use under the Real Estate Management Program as compared to Alternative A. Alternative B-1 would reduce the number of acres converted to residential use by up to one half. Impacts to vegetation resources on Trust Land as a result of conversion to residential under this alternative would be similar to impacts described under Alternative A.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives C and C-1 would result in doubling the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternatives B and B-1. Potential impacts to vegetation resources would be similar to those described under Alternative A.

- Residential Uses – Alternative C would result in doubling the number of acres converted to residential use under the Real Estate Management Program as compared to Alternative B. Alternative C-1 would reduce the number of acres converted to residential use by up to one half. Impacts to vegetation resources on Trust Land as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A.
- Alternative D – Focused Entitlements
The effects on “vegetation” with implementation of Alternative D are as generally described for Alternative C in this section. Developed uses would remain a minor component of the trust land portfolio and compliance with local and state regulations would minimize the occurrence of developed uses in sensitive locations. Specific projects would comply with mitigation requirements of local and state permits/regulations. Outcome requirements for new uses would seek to achieve desired land use and environmental objectives, such as clustering of residential uses in rural locations.

4.2.10.3 Cumulative Effects

Implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to vegetation for any of the “other” designated land uses described above. Continuation of the Current Program (Alternative A) or implementation of any of the action Alternatives would not create additional demand for conversion of current land use to commercial, industrial, or residential uses. Rather, the program alternatives analyzed in the EIS would allow the REMB to participate in the existing growth market in the state.

4.2.10.4 Residual Adverse Effects

No residual adverse effects to vegetation resources are anticipated to result from implementation of any of the alternatives evaluated in this Programmatic EIS.

4.2.10.5 Irretrievable and Irreversible Commitments of Resources

Implementation of the Proposed Action and alternatives would not result in an irreversible or irretrievable commitment of vegetation resources.

4.2.10.6 Short Term versus Long Term Productivity

Short-term impacts to vegetation include impacts described under Alternative A above. These impacts would impact vegetative productivity associated with the prior land use. Depending on the length of time that selected lands are used for commercial, industrial, or residential uses, the potential for returning the land to productive vegetative use may be possible.

4.2.11 Air Quality

4.2.11.1 State Wide Overview

Potential effects on air quality in Montana are more dependent on the amount of growth and restrictions placed on that growth, rather than on the exact locations where the growth occurs. Air quality is a regional concept, and cannot be applied to individual land parcels that may or may not be converted from the current land use to industrial/commercial or residential use. The air quality of the future does not depend on whether Trust Land or adjacent lands are developed; it depends on the rules and regulations under which the development occurs.

Air quality in Montana cannot be deteriorated from the 1975/1988 baseline levels because the EPA has established Prevention of Significant Deterioration (PSD) increments that limit incremental degradation. Any new development must meet these Federal requirements, whether the development occurs on Trust Land or not.

Descriptions of existing air quality on and around Trust Land is included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.11.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would have no negative affect on air quality.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of the current land use on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses. Potential effects on air quality include increased emissions of criteria pollutants such as carbon monoxide, lead, sulfur compounds, nitrogen compounds, ozone, and particulate matter. Specific pollutants emitted depend on the nature of the industrial/commercial facility that is built. As all major new sources would be required to meet air quality standards, any proposed facility would be required to limit emissions to permissible levels. By law, industrial sources located within 100km of a Class I area are required to demonstrate compliance with Federal and State standards as described in Chapter 3. Traditionally, this radius is extended from 100km to 200km when doing Air Quality Related Value (AQRV) analyses to demonstrate compliance.

Increased emissions due to construction are expected. However, these emissions are generally much lower than those of the final plant or facility, and are seldom enough to violate Federal or State standards.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to residential uses. Increases in automobile-related emissions (e.g. carbon monoxide, nitrogen dioxide) and some increases in emissions of particulate matter due to residential wood smoke would result. If the concentration of new housing is high enough, and if the development occurs in areas where persistent inversion layers form (e.g. valleys), then particulate matter concentrations would increase. If that occurs, mechanisms would be employed by EPA to bring the State into air quality compliance.

Increased emissions due to construction of housing would be expected. However, these emissions would be short-lived and do not generally violate Federal or State standards.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in an overall increase of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to air quality would be similar to those described under Alternative A, and would be subject to the same regulations and compliance demonstration requirements.

The amount of industrial/commercial development is unlikely to be affected by whether additional Trust Lands or adjacent non-Trust Lands are developed. Since emissions affect the air quality on a regional scale, only the amount of development affects air quality.

- Residential Uses – Alternatives B and B-1 would result in an increase in the number of acres converted to Residential use under the Real Estate Management Program as compared to Alternative A. Alternative B-1 would reduce the number of residential acres by up to one half. Impacts to Trust Land as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A.

The amount of residential development is unlikely to be affected by whether additional Trust Land or adjacent non-Trust Land are

developed. Since emissions affect the air quality on a regional scale, only the scale of development affects air quality.

- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives C and C-1 would result in an increase in the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to air quality would be similar to those described under Alternative A.

The amount of industrial/commercial development is unlikely to be affected by whether additional Trust Lands or adjacent non-Trust Lands are developed. Since emissions affect the air quality on a regional scale, only the amount of development affects air quality.

- Residential Uses – Alternatives C and C-1 would result in an increase in the number of acres converted to Residential use under the Real Estate Management Program as compared to Alternative A and B. Under Alternative C-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount. Impacts to Trust Land as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A, B and B-1.

The amount of residential development is unlikely to be affected by whether additional Trust Land or adjacent non-Trust Land are developed. Since emissions affect the air quality on a regional scale, only the amount of development affects air quality.

- Alternative D – Focused Entitlements

The effects on “air quality” with implementation of Alternative D are as generally described for Alternative C in this section. Developed uses would remain a minor component of the trust land portfolio and broader community. Specific projects would comply with mitigation requirements of local and state permits/regulations.

4.2.11.3 Cumulative Effects

Implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to degradation of air quality for any of the designated land uses described above. None of the Alternatives would create a demand for conversion of current land use to any of the designations described.

Rather, the program alternatives analyzed in the EIS would allow the REMB to participate in the existing real estate growth market in the state.

4.2.11.4 Residual Adverse Effects

No residual adverse effects to air quality are anticipated to result from implementation of any of the Alternatives evaluated in this EIS. Compliance with local, state, and federal laws for controlling new emission sources would reduce impacts to permissible levels.

4.2.11.5 Irretrievable and Irreversible Commitment of Resources

Implementation of the any of the Alternatives would not result in an irreversible or irretrievable commitment of air quality related resources. Compliance with local, state, and federal requirements would limit emissions associated with the Real Estate Management Program.

4.2.11.6 Short Term versus Long Term Productivity

Short-term impacts to air quality include impacts described above. These short-term impacts are not expected to impact the long-term air quality on or near Trust Lands included in the Real Estate Management Program.

4.2.12 Noise

4.2.12.1 Statewide Overview

Noise is identified, as “unwanted sound” that could result from change in use of Trust Lands from current activities to commercial, industrial, or residential uses. Noise emanating from Trust Land varies in accordance with the location of the tract, proximity of the receiver to the source (sensitive receptor), and the noise generating activity on or near a specific tract.

Descriptions of noise levels in Montana and on Trust Land is included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.12.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would not increase noise levels.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of the current land use on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses. Depending on the type of activity, conversion of land use to industrial or commercial use could result in a change in

noise levels emanating from a particular tract of land. Where the industrial or commercial activity would occur inside a building, the noise levels affecting sensitive receptors might not change from levels associated with the prior land use. In other cases, the type of activity may result in an increase in noise levels over prior land uses.

Several Montana communities have adopted noise ordinances that apply to commercial and industrial sites within city limits. Compliance with noise ordinances would limit noise emissions from new sources.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to residential uses. Most activity would occur in the western portion of Montana.

Noise sources associated with residential property typically include loud stereo or audio equipment, vehicles, and emergency response vehicles. Depending on the location of the selected trust tract, conversion to residential use may or may not result in noticeable change in noise levels. For lands that are presently surrounded or are within existing residential areas, conversion of the trust tract would likely not result in noise levels in excess of adjacent areas.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in approximately twice the number of acres of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to sensitive receptors from noise levels associated with implementation of Alternatives B and B-1 would be similar to those described under Alternative A.
 - Residential Uses – Alternative B would result in doubling the number of acres converted to residential use under the Real Estate Management Program as compared to Alternative A. Under Alternative B-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount. Impacts from noise emissions associated with residential uses under this alternative would be similar to impacts described under Alternative A.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority

- Industrial and Commercial Uses – Implementation of Alternatives C and C-1 would result in doubling the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternative B. Potential impacts to sensitive receptors from noise levels associated with implementation of Alternative C would be similar to those described under Alternative A.
- Residential Uses – Alternative C would result in doubling the number of acres of eligible Trust Land converted to residential use under the Real Estate Management Program as compared to Alternative B. Under Alternative C-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount. Impacts from noise emissions associated with residential uses under this alternative would be similar to impacts described under Alternatives A, B and B-1.
- Alternative D – Focused Entitlements
The effects on “noise” with implementation of Alternative D are as generally described for Alternative C in this section. Developed uses would remain a minor component of the trust land portfolio and to the make-up of the local community. Specific projects would comply with mitigation requirements of local and state permits/regulations as applicable.

4.2.12.3 Cumulative Effects

Implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to sensitive receptors as a result of changes in noise levels associated with designated land uses described above. The program alternatives analyzed in the EIS would allow The REMB to participate in the existing real estate growth market in the state. Growth on trust lands is sharing the same market as the broader community so is not additive or excess to what would otherwise occur in the community.

4.2.12.4 Residual Adverse Effects

No residual adverse effects from noise levels are anticipated to result from implementation of any of the alternatives evaluated in this P EIS. Compliance with local zoning and subdivision regulations for controlling noise levels would result in activities on Trust Land being compatible with surrounding areas.

4.2.12.5 Irretrievable and Irreversible Commitments of Resources

Not applicable

4.2.12.6 Short Term versus Long Term Productivity

Not applicable

4.2.13 Aesthetics

4.2.13.1 Statewide Overview

Montana's landscape is comprised of diverse topography including the Rocky Mountains in the western one-third of the state and the Great Plains in the eastern two-thirds of the state broken by various island mountain ranges and badlands. The variety of landscapes across the state results in widely differing aesthetics to the viewer.

Descriptions of aesthetic resources in Montana and Trust Land are included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.13.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would not impact aesthetic resources.

- Alternative A – Current Program
 - Commercial and Industrial Uses – Implementation of Alternative A would result in conversion of current land uses on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses.

Because most of the projected use of Trust Land for commercial and industrial uses is expected to occur within urban areas, the potential effects on aesthetic resources would be limited. Existing infrastructure of municipalities has modified the landscape and established an urban – suburban visual characteristic. Addition of commercial or industrial facilities to the existing setting would not result in modifications to the natural landscape. However, views from urban areas or within urban areas may also be influenced by new growth. Conformance to community design guidelines, where applicable, and to local zoning regulations, as applicable, would help to minimize adverse impacts.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to residential uses. Potential effects on aesthetic resources from residential development include increased urban sprawl comprised of housing, roads, and utility corridors. These landscape

modifications would include changes in form, color, texture, and line of the natural landscape. In some circumstances, development of Trust Lands may avoid situations where development would occur around or bi-passing the trust tract; thereby increasing sprawl.

Developers of residential lands may be required to design subdivisions or housing development with the natural landscape receiving consideration. Retaining the natural landscape as much as practicable would reduce impacts to aesthetic resources.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in an increase of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to aesthetic resources would be similar to those described under Alternative A.
 - Residential Uses – Alternative B would result in an increase in the number of acres converted to residential use under the Real Estate Management Program as compared to Alternative A. Under Alternative B-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount. Impacts to aesthetic resources as a result of conversion to residential use under this alternative would be similar to impacts described under Alternative A. However, increased acreage conversion to residential in certain areas could result in greater modification to the landscape as compared to Alternative A.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives C and C-1 would result in an increase in the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternatives B and B-1. Potential impacts to aesthetic resources would be similar to those described under Alternative A because development would largely occur within areas where the landscape has already been modified by urban development.
 - Residential Uses – Alternatives C and C-1 would result in an increase in the number of acres converted to residential use under the Real Estate Management Program as compared to Alternatives B and B-1. Under Alternative C-1 the number of acres converted to residential use could be reduced by as much as half of the

projected amount. Impacts to aesthetic resources as a result of conversion to residential use under this alternative would be similar to impacts described under Alternatives B and B-1. However, increased acreage conversion to residential in certain areas could result in greater modification to the landscape as compared to Alternative A.

- **Alternative D – Focused Entitlements**
The effects on “aesthetics” with implementation of Alternative D are as generally described for Alternative C in this section. Developed uses would remain a minor component of the trust land portfolio and to the general mix of the community. Outcome objectives for new uses would seek to achieve desired land use and environmental objectives, such as clustering of residential uses in rural locations and design standards.

4.2.13.3 Cumulative Effects

Commercial and industrial development is expected to occur primarily within urban areas where municipal infrastructure has already modified the natural landscape; therefore, addition of commercial and industrial development on Trust Lands is not expected to add measurably to existing landscape characteristics. Development of residential uses on Trust Lands in rural areas may add to the visual changes evolving from urban – suburban interface. None of the Alternatives would create a demand for conversion of current land use to commercial, industrial, or residential uses. Rather, the program alternatives analyzed in the EIS would allow The REMB to participate in the existing real estate growth market in the state. The REMB would rely on the identification of community values through growth policies, subdivision regulations, and zoning regulations to identify aesthetic issues and to mitigate appropriately.

4.2.13.4 Residual Adverse Effects

Residual adverse effects on aesthetic resources are anticipated to result from implementation of any of the Alternatives evaluated in this EIS. Compliance with local zoning (where applicable) and subdivision regulations and incorporation of natural landscape retention in residential development design where required, would reduce residual effects from development.

4.2.13.5 Irretrievable and Irreversible Commitments of Resources

Implementation of any of the Alternatives would not result in an irreversible or irretrievable commitment of aesthetic resources.

4.2.13.6 Short Term versus Long Term Productivity

Short-term impacts to aesthetic resources include impacts described above. Long-term productivity of the landscape, although modified by development, would not be affected.

4.2.14 Cultural Resources

4.2.14.1 Statewide Overview

Cultural and/or paleontologic resources exist on many Trust Lands throughout Montana. Potential impacts to these resources are not distinguishable by geographic land office area. State agencies are responsible for stewardship of significant historic and prehistoric resources on state-owned land in accordance with the Montana State Antiquities Act (§ 22-3-421—22-3-442, MCA). Stewardship requires systematic identification and evaluation of sites, buildings, and districts (groups of related buildings or sites) within a potential impact area, and considering the possibility and feasibility of preserving, avoiding, and/or mitigating potential adverse effects to those sites or resources. Under all alternatives, information would be gathered by qualified persons regarding the presence of cultural and paleontologic resources as Trust Lands are developed as part of the current Real Estate Management Program for commercial, industrial, or residential lands.

General descriptions of cultural resources in Montana are included in Chapter 3 – Affected Environment. Descriptions of the Alternatives are included in Chapter 2.

4.2.14.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would not impact aesthetic resources.

- Alternative A – Current Program
 - Industrial and Commercial Uses – Implementation of Alternative A would result in conversion of current land uses on selected Trust Lands (agriculture, grazing, or timber) to industrial and/or commercial uses. The estimated number of acres to be converted to industrial and/or commercial use under Alternative A ranges from 52 in the Eastern Land Office area to 809 in the Central Land Office area.

Qualified DNRC personnel will conduct cultural/paleontologic resource surveys of Trust Lands selected for commercial and/or industrial development in accordance with the Montana State Antiquities Act prior to any groundbreaking activities. These surveys are required to identify cultural and paleontologic resources within a proposed project area, and to gather sufficient data to generate informed recommendations directed toward limiting, avoiding, or otherwise mitigating impacts to state owned Heritage Properties and scientifically significant paleontologic resources.

- Residential Uses – Continuation of the current Real Estate Management Program would result in conversion of selected Trust Lands to residential uses. The estimated number of acres to be converted to residential use under Alternative A ranges from 21 in the Eastern Land Office to 2,705 in the Northwest Land Office.

In some circumstances, development of Trust Lands where cultural or paleontologic resources have not been identified may avoid situations where development would otherwise occur outside Trust Lands where cultural/paleontologic resource surveys are not required.

- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives B and B-1 would result in an increase in the number of acres of Trust Land that would be reclassified from current land use and converted to industrial and/or commercial uses as compared to Alternative A. Potential impacts to cultural and paleontologic resources will be similar under all Alternatives. However, the Montana State Antiquities Act directs state land managing agencies to consider the consequences of proposed impacts to cultural and paleontologic resources through a three step process. The first step is on the ground identification of cultural and paleontologic resources in a project area. The second step is to evaluate the historical, cultural and scientific significance of those resources following a standardized set of criteria. The third step is to consider the feasibility of designing steps to limit, avoid, or otherwise mitigate impacts to those state owned resources determined to be historically, culturally, or scientifically significant cultural resources (Heritage Properties), or scientifically significant paleontologic resources.
 - Residential Uses – Alternatives B and B-1 would result in an increase in the number of acres converted to residential use under the Real Estate Management Program as compared to Alternative A. Under Alternative B-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount. Potential impacts to cultural and paleontologic resources will be similar under all Alternatives; however, the Montana State Antiquities Act directs state land managing agencies to consider the consequences of proposed impacts to cultural and paleontologic resources through a three step process. The first step is on the ground identification of cultural and paleontologic resources in a project area. The second step is to evaluate the historical, cultural and scientific significance of those resources following a

standardized set of criteria. The third step is to consider the feasibility of designing steps to limit, avoid, or otherwise mitigate impacts to those state owned resources determined to be historically, culturally, or scientifically significant cultural resources (Heritage Properties), or scientifically significant paleontologic resources.

- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Implementation of Alternatives C and C-1 would result in an increase in the number of acres of Trust Land that would be modified from current land use and converted to industrial and/or commercial uses as compared to Alternatives B and B-1. Development under Alternative C over Alternatives B and B-1 by land office area is generally by a factor of two. Potential impacts to cultural and paleontologic resources will be similar under all Alternatives, however, the Montana State Antiquities Act directs state land managing agencies to consider the consequences of proposed impacts to cultural and paleontologic resources through a three step process. The first step is on the ground identification of cultural and paleontologic resources in a project area. The second step is to evaluate the historical, cultural and scientific significance of those resources following a standardized set of criteria. The third step is to consider the feasibility of designing steps to limit, avoid, or otherwise mitigate impacts to those state owned resources determined to be historically, culturally, or scientifically significant cultural resources (Heritage Properties), or scientifically significant paleontologic resources.
 - Residential Uses – Alternatives C and C-1 would result in an increase in the number of acres converted to residential use under the Real Estate Management Program as compared to Alternatives B and B-1. Under Alternative C-1 the number of acres converted to residential use could be reduced by as much as half of the projected amount. Conversion to residential use would range from 38 acres in the Eastern Land Office area to 5,410 acres in the Northwest Land Office area under Alternative C. Eastern Montana Land Office areas would see a combined total of 812 acres of conversion versus 11,143 acres in the western area. Reclassification of 11,143 acres to residential use in the western Montana Land Office areas would represent 0.9 percent of the total developable Trust Lands in those Land Office areas. Potential impacts to cultural and paleontologic resources will be similar under all Alternatives, however, the Montana State Antiquities Act directs state land managing agencies to consider the consequences

of proposed impacts to cultural and paleontologic resources through a three step process. The first step is on the ground identification of cultural and paleontologic resources in a project area. The second step is to evaluate the historical, cultural and scientific significance of those resources following a standardized set of criteria. The third step is to consider the feasibility of designing steps to limit, avoid, or otherwise mitigate impacts to those state owned resources determined to be historically, culturally, or scientifically significant cultural resources (Heritage Properties), or scientifically significant paleontologic resources.

- Alternative D – Focused Entitlements
The effects on “cultural resources” with implementation of Alternative D are as generally described for Alternative C in this section.

4.2.14.3 Cumulative Effects

Commercial and industrial development is expected to occur within urban areas where municipal infrastructure has already modified the natural landscape; therefore, addition of commercial and industrial development on Trust Lands is not expected to measurably increase impacts to cultural or paleontologic resources. Development of residential uses on Trust Lands may increase potential impacts to cultural and paleontologic resources on previously undisturbed land. However, required cultural and paleontologic resource surveys are required to identify cultural and paleontologic resources within a proposed project area, and to gather sufficient data to generate informed recommendations directed toward limiting, avoiding, or otherwise mitigating impacts to state owned Heritage Properties and scientifically significant paleontologic resources. Because of the nonrenewable nature of cultural and paleontologic resources, most disruptive impacts will be permanent and irreversible.

None of the Alternatives would create a demand for conversion of current land use to commercial, industrial, or residential uses. Rather, the program alternatives analyzed in the Programmatic EIS would allow the REMB to participate in the existing real estate growth market in the state.

4.2.14.4 Residual Adverse Effects

Because of the nonrenewable nature of cultural and paleontologic resources, most disruptive impacts will be permanent and irreversible. Residual adverse effects thus could result from implementation of any of the Alternatives evaluated in this EIS. Ultimately, however, compliance with the Montana State Antiquities Act would reduce any potential residual effects from development.

4.2.14.5 Irretrievable and Irreversible Commitments of Resources

Because of the nonrenewable nature of cultural and paleontologic resources, most disruptive impacts will be permanent and irreversible. Implementation of any of the

Alternatives could result in irreversible or irretrievable commitments of cultural or paleontologic resources. Ultimately, however, compliance with the Montana State Antiquities Act would reduce irreversible or irretrievable commitments of significant cultural or paleontologic resources.

4.2.14.6 Short Term Uses versus Long Term Productivity

Because of the nonrenewable nature of cultural and paleontologic resources, most disruptive impacts will be permanent and irreversible. Short-term impacts to cultural and paleontologic resources include impacts described above. Long-term productivity of the landscape, although modified by development, would not be affected. Ultimately, however, compliance with the Montana State Antiquities Act would reduce adverse effects to Heritage Properties and scientifically significant paleontologic resources.

4.2.15 Community Infrastructure

4.2.15.1 Statewide Overview

The condition of community infrastructure varies across the state. Transportation systems, sewer and water facilities, public facilities and services generally reflect local economic conditions and the ability of the tax base to support construction and maintenance. Typically communities prepare capital improvement plans to address overall community infrastructure and services needs, based on need and the availability of financing. Projects are typically financed through a combination of state and federal funding and local mechanisms including special improvement districts, general obligation and revenue bonds, and direct appropriation.

Montana's land use statutes, particularly the Montana Subdivision and Platting Act and the Montana Sanitation in Subdivisions Act and Annexation statutes require the provision of necessary infrastructure, which may include the extension of city utilities, if properly authorized.. The costs associated with the provision of streets, sidewalks, lighting, sewer, and water are typically paid by the developer and/or the ultimate owners of the property involved.

4.2.15.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would not impact community infrastructure and services.

- Alternative A – Current Program
 - Industrial and Commercial Uses – The REMB would rely on the developer to build and finance the infrastructure necessary to support any new activity or to participate fully in community-wide efforts to make infrastructure improvements. The REMB, through

its industrial and commercial lessees would participate in Special Improvement District programs to finance capital improvements and to pay any user fees associated with the provision of services such as sewer, water and garbage disposal.

- Residential Uses – Under Alternative A, proposals for residential development would be largely developer initiated and identified as a project through the project selection process. Adherence to local land use regulatory processes, particularly subdivision requirements would ensure that community infrastructure and services needs would be addressed.
- Alternatives B – Diversified Portfolio and B-1 – Conservation Priority
 - Industrial and Commercial Uses – The REMB would rely largely on developers and lessees to address infrastructure requirements associated with particular projects. However, under Alternative B, the REMB will be more active in assisting developers in identifying infrastructure needs and in locating potential resources for implementing projects. Up to \$500,000 per year would be available to improve land entitlements, including extension of infrastructure facilities. The economic analysis (Appendix D) suggests that up-front expenditures to improve entitlements to raw land would increase the average rate of return to the Trusts.
 - Residential Uses – Proposals for residential development under Alternatives B and B-1 would be largely developer initiated but be subject to project “approval” through the project selection process. Adherence to local land use regulatory processes, particularly subdivision requirements would help assure that community infrastructure and services needs would be addressed. However, in addition, the REMB would direct some of its staff resources to in overall community improvements planning in order to better position its land with respect to existing and planned community infrastructure development.
- Alternatives C – Focused Portfolio and C-1 – Conservation Priority
 - Industrial and Commercial Uses – Greater emphasis would be given to the acquisition of existing commercial (including multi-family residential properties) and industrial facilities. In most cases, these facilities would already have the necessary community infrastructure and services in place. Also under Alternatives C and C-1, the REMB would work with potential lessees and the local government to identify appropriate strategies for addressing infrastructure requirements for new development. Up to \$1 million per year would be available to improve land entitlements, such as

extension of infrastructure facilities. The economic analysis (Appendix D) suggests that up-front expenditures to improve entitlements to raw land would increase the average rate of return to the Trusts.

- Residential Uses – As under Alternatives A, B and B-1, developers of residential properties would largely be responsible for addressing community infrastructure and services needs. Some infrastructure improvements to raw land could be initiated by the REMB to improve land entitlements.
- Alternative D – Focused Entitlements
The effects on “community infrastructure” with implementation of Alternative D are as generally described for Alternative C in this section. Development on trust lands would be consistent with local policies concerning developer impact assessments. Generally, DNRC would pass on all application fees, infrastructure costs, and impact fees to the developer. In some situations, it may be advantageous for DNRC to improve land entitlements to a particular parcel to improve the revenue generating capacity of the property. In any event, DNRC would not expect the local jurisdictions to subsidize development on trust lands beyond what is normally permitted by local policy.

4.2.15.3 Cumulative Effects

Under all the Alternatives the REMB would share in community growth. While the percentage of development on Trust Land would vary by alternative, demand on overall community infrastructure would remain a constant. What distinguishes the alternatives from each other is the degree to which the REMB would engage in addressing infrastructure requirements associated with its residential, commercial and industrial programs. In addition, under all Alternatives, the REMB would follow land use regulatory processes, and work with the local governing bodies and project developers to assure that impacts on community infrastructure and services were appropriately addressed. Finally, as part of the site selection process presented in Chapter 2, the proximity and availability of infrastructure to Trust Lands would serve as an indicator to the suitability of land for future use and development (see Figure 2-4 and associated narrative).

4.2.15.4 Residual Adverse Effects

There will be no residual adverse effects.

4.2.15.5 Irretrievable and Irreversible Commitments of Resources

Not Applicable

4.2.15.6 Short Term versus Long Term Productivity

Not Applicable

4.2.16 Taxation – Property Tax

4.2.16.1 Statewide Overview

Property in Montana is subject to advalorem taxes levied on the basis of property type and value. The Montana legislature has determined that different types of property and property used for different purposes should be taxed at different rates and bear a different proportion of the overall tax burden. Under 15-6-101MCA, the state has identified a variety of property classifications. Among these are Class 3 – Agriculture, Class 4 – residential and commercial real estate, Class 10 – Forested Lands, and eight other classifications. (Industrial properties are classified under a variety of categories depending on the specific type of industry). The classification rates for residential, commercial and industrial properties are generally higher than those for timber and agricultural properties.

Property tax rates are calculated in the following manner: The assessed valuation of the property is multiplied by the classification rate to obtain the taxable value. Taxable values are then multiplied by the local mill levy to derive the actual tax. A mill is equal to 1/1000 of the entire taxable value of the jurisdiction of the county and municipality within which the property is located. The number of mills levied varies by jurisdiction and is dependent on the overall tax base. Property taxes are levied on both the value of the land and on any improvements. Generally, approximately two thirds of the property taxes collected help fund the local public system, K-12. Seven mills are directed to the state university system and the remaining one third supports local government services and infrastructure. Non-permanent residential improvements such as trailers and recreational cabins located on leased properties are taxed under Montana's personal property statutes.

- **Special Fees and Assessments** – In addition to property taxation, land and improvements are subject to a variety of special fees for services (garbage, fire and ambulance) and capital improvements (streets, sidewalks, sewers, lighting). Payments for these services are often paid through special improvement districts (SID's) or Rural Improvement Districts (RID's). Properties exempt from advalorem taxes are not necessarily exempt from special fees.
- **Exemptions** – Lands and improvements owned by local, state and federal government agencies are exempt from property taxes as are properties owned by certain non-profit organizations.

- **Beneficial Use Taxes** – Exempt land and improvements that are leased to a private entity engaged in a business activity are subject to taxation. Under 15-24-1203, MCA a tax is imposed and must be collected tax “upon the possession or other beneficial use for industrial, trade or other business purposes enjoyed by any private individual, association or corporation of any property, real or personal, that for any reason is exempt from taxation.” The tax is calculated in the same manner as for non-exempt properties.

4.2.16.2 Direct and Indirect Impacts

The direct and indirect impacts are addressed under each alternative. It is assumed that conservation uses under all alternatives would not affect property tax levels.

- **Alternative A – Current Program** – Under Alternative A, residential, industrial and commercial growth on Trust Lands would be less [based on a proportional share of land base] than the rate of growth expected on other lands within the region. As a result, the development of residential, commercial and industrial uses on Trust Lands would contribute a corresponding amount to the tax base. This would occur through the payment of beneficial use taxes by lessees of commercial and industrial properties, the payment of personal property tax on residential improvements (cabins and trailers) located on leased residential lands, and the payment of property taxes on residential properties acquired through purchase of former Trust Lands.
- **Alternatives B – Diversified Portfolio and B-1 – Conservation Priority** – Under Alternatives B and B-1, the REMB would expect to share in direct proportion [proportionate share of land ownership] to the rate of growth in the region. As a result, the development of residential, commercial and industrial uses on Trust Lands would contribute a corresponding amount to the tax base. This would occur through the payment of beneficial use taxes by lessees of commercial and industrial properties, the payment of personal property tax on residential improvements (cabins and trailers) located on leased residential lands, and the payment of property taxes on residential properties acquired through purchase of former Trust Lands.
- **Alternatives C – Focused Portfolio and C-1 – Conservation Priority** – Under Alternatives C and C-1, the REMB would expect to share in a proportionately larger share (based on proportion of land ownership) of the expected growth in a region. As a result, the development of residential, commercial and industrial uses on Trust Lands would contribute a corresponding amount to the tax base. This would occur through the payment of beneficial use taxes by lessees of commercial

and industrial properties, the payment of personal property tax on residential improvements (cabins and trailers) located on leased residential lands, and the payment of property taxes on residential properties acquired through purchase of former Trust Lands.

- **Alternative D – Focused Entitlements**
The effects on “taxation” with implementation of Alternative D are as generally described for Alternative C in this section.

4.2.16.3 Cumulative Effects

Commercial and Residential properties – land and improvements – are taxed at the same rate under Montana’s property tax statutes. Industrial development is taxed at various rates depending on the type of industry. As a general rule, property taxes are equal to approximately 2% of the market value of land and improvements for commercial and residential properties. The percentage rate for industrial properties varies. Regardless of the Alternative, the development of commercial, residential and industrial uses, will add to the local property tax base. The issue of taxes is often dealt with during subdivision review and, in most instances, it would be appropriate for the local jurisdiction to determine the tax benefits that might be associated with a particular project and how the project fits in with the broader community mix.

It is also important to note that the development of commercial, residential and industrial uses provides would revenue to the beneficiaries of the Trust in three ways:

- Providing direct revenue to the State Trust
- Providing property tax revenue to local school districts
- Increasing the local bonding capacity to finance infrastructure improvements including those for schools.

4.2.16.4 Residual Adverse Effects

Not Applicable

4.2.16.5 Irretrievable and Irreversible Commitments of Resources

Not Applicable

4.2.16.6 Short Term versus Long Term Productivity

As property values increase over time, the development of commercial, residential and industrial uses on Trust Lands will increasingly contribute to the local tax base through property tax payments.

4.2.17 State Equalization Payments to Counties

4.2.17.1 Statewide Overview

In 1965, legislation was adopted providing for reimbursement to counties for loss of revenue where tax-exempt state land constituted in excess of 6% of total land area. Funds were paid to counties and distributed to the elementary districts (60% of the payment) and to the county road funds (40%). Subsequent changes in Montana statute have addressed the incorporation of the Trust Land Management program into the Montana Department of Natural Resources and Conservation and associated administrative changes. In 2001, the state overhauled its entire system of shared revenues. However, counties continue to be reimbursed for the tax-exempt state land in excess of 6% of the total land area pursuant to the original intent of the 1965 legislation. Over the past four years, the total amount paid to counties has averaged \$550,000 annually.

4.2.17.2 Direct and Indirect Impacts

The purpose of state the state equalization program is to compensate counties for lost tax revenue from tax-exempt state lands. Under all Alternatives, when Trust Lands are sold or leased for residential, commercial, or industrial uses, the resulting beneficial tax or direct property tax payments would more than compensate the counties for any lost equalization payments.

4.2.17.3 Cumulative Effects

Overall, counties will continue to benefit from Trust Lands located within their jurisdictions under all Alternatives. In areas where the development of residential, commercial and industrial uses is less likely to occur, equalization payments will continue to provide county governments with needed funds. In areas where the REMB is more active, the local jurisdictions will benefit from increased property taxes associated with economic activity on Trust Lands as well as from equalization payments.

4.2.17.4 Residual Adverse Effects

Not Applicable

4.2.17.5 Irretrievable and Irreversible Commitments of Resources

Not Applicable

4.2.17.6 Short Term versus Long Term Productivity

Not Applicable

4.3 MONITORING AND ACCOUNTING

4.3.1 Monitoring

A monitoring program would follow the “life” of the plan. First the monitoring program would provide an ongoing evaluation of how the selected plan is being implemented in relationship to key growth indices used in the DPEIS. This would be primarily accomplished by comparing actual community growth (population and economy) in a land office region to actual growth and activities (leases, licenses, sales, easements, exchanges) on Trust lands. Growth is a trend measurement so monitoring checks would be in year 2010, initially, and at 5 year intervals thereafter. Secondly, the original assumptions of the plan would be monitored to detect any effects of unforeseen changes in the physical, social, political, or economic conditions. This DEIS attempts to look almost 21 years into the future and unanticipated circumstances can be expected that cannot be reasonably anticipated at this time.

Monitoring reports would include summary information as listed below:

- Actual population and economic growth in land office regions and the state using the same methodology used in the DPEIS.
- Comparison of growth on trust lands (commercial, conservation, industrial, residential) to projections of Plan by Land office and state regions.
- Location and types of projects on trust lands reviewed by local regulatory processes (zoning, subdivision, annexation, extension of services, building permits, growth policy including neighborhood plans).
- Revenue return to the trusts from residential, commercial, industrial, and conservation uses by transaction category (lease, license, easement, sale).
- REMB staff (numbers & type) and program funding.
- Acres of land sales, leases, easements, exchanges, and associated entitlements added.
- Acres of lands purchased by land use type.
- Lands removed or added to an HCP.
- Number of acres of lands reclassified to “other” (77-1-401-403, MCA) by location and original land classification with description of major affected natural and physical features of the project area.

A report to the TLMD and Board of Land Commissioners would be made at the 5 year intervals identified above. The reports would serve as a basis to test conformity to the assumptions of the selected plan and to identify processes to modify the plan as appropriate and necessary to make mid-course adjustments.

The REMB plan needs to be dynamic in the sense that this is a land use plan and implementation is affected by outside market forces, local, and state regulations and internally by legislation, Land Board policies, and funding, among others.

Identification and implementation of projects (yet to be identified) is typically a multi-year process. Land use projects could occur gradually or in “spurts” or a combination of both. Years of trend information are necessary to fully assess the effectiveness of the assumptions. For this same rationale, local communities in Montana typically have a 20 year horizon for growth policies with interim updates as needed. The REMB plan should be allowed to “mature” over a period of years to avoid premature adjustments before accurate and sufficient trend data can be compiled and properly assessed. More immediate reasons to amend the Plan could include the following critical situations:

- Acreage caps have been exceeded;
- Required legislative remedies to achieve the selected management philosophy are not accomplished or other legislation is enacted contrary to the selected plan;
- Certain critical elements of the plan are either not supported or implemented by the Board of Land Commissioners; or
- The Trust Land Management Division Administrator judges that the original assumptions supporting the Plan no longer apply.

Minor changes or additions that do not conflict with the overall management philosophy of the select Plan would not require programmatic review. This could include short-term fluctuations (5 year average) in project implementation (acres of new development or conservation lands), staffing changes, or funding allocations.

The Real Estate Management Bureau Chief could change the management of the plan i.e. modification to the implementation and or filter processes without changing the Plan if the proposed change(s) did not violate the fundamental intent as reflected in the Plan and EIS. The Department does not have immediate plans to request additional FTE or budget. This is to allow us to gain experience in implementing the Plan and to determine, through the experience, if additional personnel and budget are needed to fully implement the plan.

Program goals and objectives would be established and revised as necessary to remain in compliance with the Plan and followed by DNRC staff and field personnel.

4.3.2 Accounting

Tracking the acres of projects completed would be accomplished as described below.

Conservation lands are achieved by:

- Conservation lease or license;
- Securing of development rights through lease, license or permanent disposition;
- Conservation easement;

- Open space or common area achieved through clustering or other regulatory processes generally associated with zoning or subdivision requirements;
- Areas leased to FW&Ps or other public agencies where the permitted uses generally restrict the ability to develop residential, commercial, or industrial uses.
- Land designated as “Natural Area”;
- Sale of land for conservation use; and
- Purchased property or property received in exchange that is already dedicated or deed restricted for conservation purposes.

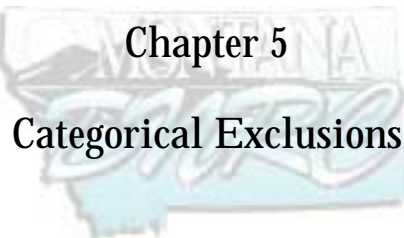
Residential lands are recognized whenever a land use density greater than one unit per 25 acres is achieved through one or more of the following situations:

- That portion of trust lands leased for residential use other than those residential-type uses classified by the DOR as “commercial”. Common areas and or open space associated with development that exceed statutory requirements would be counted as achieving the goals toward conservation;
- Trust land acreages sold under land banking for residential purposes to support the objectives of the plan. [Trust land acreages not tracked under this plan would be those sold that support the objectives of other Bureau programs (agriculture, timber, or grazing)].
- Trust lands sold with entitlements that permit a density of at least 1 unit per 25 acres. Those acres dedicated as open space and or common areas as a result of improved entitlements would be counted as achieving the goals toward conservation;
- Trust lands exchanged to accomplish the objectives of a project under the Real Estate Management plan where the exchanged trust land is identified in the local growth policy and or local zoning for residential uses; and
- Purchased property or property received in exchange that is already developed and operating for residential uses.

Commercial or industrial lands are recognized whenever one or more of the following situations applies to a particular property:

- That portion of trust lands leased for commercial or industrial uses or residential uses classified by the DOR as “commercial”. Common areas and or open space associated with development that exceed statutory requirements would be counted as achieving the goals toward conservation;
- Trust lands sold at commercial/industrial values for commercial/industrial uses with no diminished property rights.
- Trust lands sold with entitlements that would authorize commercial or industrial uses. Those acres dedicated as open space and or common areas as a result of improved entitlements would be counted as achieving the goals toward conservation;

- Trust lands exchanged to accomplish the objectives of a project under the Real Estate Management plan where the exchanged trust land is identified in the local growth policy and or local zoning for commercial or industrial purposes; and
- Purchased property or property received in exchange that is already developed and operating for commercial or industrial uses.



Chapter 5

Categorical Exclusions

Introduction and Purpose of the Chapter

Chapter 5 identifies those actions proposed for consideration as categorically excluded from MEPA documentation under any of the Alternatives as described in Chapter 2 of this PEIS. Categorical exclusions are types (or categories) of actions that normally do not have the potential to cause significant environmental effects. They do not require an EA or EIS, unless extraordinary circumstances occur. The following definition of categorical exclusion is from ARM (Administrative Rules of Montana) 36.2.522 (5)):

‘Categorical exclusion refers to a type of action that does not individually, collectively, or cumulatively require an EA or EIS, as determined by rulemaking or programmatic review adopted by the agency, unless extraordinary circumstances, as defined by rulemaking or programmatic review, occur.’

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5.1 OVERVIEW

Under this PEIS, CE's are appropriate in those situations where no significant impact will occur as a result of the exemption and as provided for in MCA 77-1-121. The level of MEPA review will be commensurate with DNRC's obligations under MCA 77-1-121 recognizing local governmental actions and associated analysis when appropriate.

This chapter also details local government regulations and resulting actions, the level of analysis associated with those actions, and how they interrelate to satisfy MEPA requirements.

CE's are addressed further in the following Administrative Rules references:

5.1.1 Emergency Situations (ARM 36.2.539):

An agency may take or permit action having a significant impact on the quality of the human environment in an emergency situation without preparing an EIS. Within 30 days following the initiation of the action, the agency shall notify the governor and the Montana Department of Environmental Quality (DEQ) as to the need for the action and associated impacts and results. Emergency actions must be limited to those actions immediately necessary to control the impacts of the emergency. "Emergency actions" include, but are not limited to (ARM 36.2.522):

- Projects undertaken, carried out, or approved by the agency to repair or restore property or facilities damaged or destroyed as a result of a disaster when a disaster has been declared by the governor or other appropriate government entity
- Emergency repairs to public service facilities necessary to maintain service
- Projects, whether public or private, undertaken to prevent or mitigate immediate threats to public health, safety, welfare, or the environment

5.1.2 Extraordinary Circumstances

Any additional Categorical Exclusions would apply where there were no extraordinary circumstances. Extraordinary circumstances are situations that may create a potential for significant impacts and would trigger an EA or EIS MEPA analysis.

5.1.3 Categorical Exclusions from MEPA Documentation

Categorical exclusions from MEPA documentation would be pursued under all alternatives under scenarios presented in table 5-1.

Table 5-1. MEPA Exclusions/Exemptions – When Considered/Applied
Exempt per 36.2.523(5) A.R.M.
Lease and License administration including assignments, renewals and enforcement of terms and conditions
Lease/License modifications consistent with local regulations or MEPA document
Project Design
REMB Project List
Marketing
Administrative actions: routine, clerical or similar functions of a department, including but not limited to administrative procurement, contracts for consulting services, and personnel actions
Minor repairs, operations, or maintenance of existing equipment or facilities
Investigation and enforcement: data collection, inspection of facilities or enforcement of environmental standards
Ministerial actions: actions in which the agency exercises no discretion, but rather acts upon a given state of facts in a prescribed manner
Actions that are primarily social or economic in nature and that do not otherwise affect the human environment
Exempt per 77-1-121, M.C.A.
Development or adoption of a growth policy or a neighborhood plan pursuant to Title 76, chapter 1
Development or adoption of zoning regulations
Review of a proposed subdivision pursuant to Title 76, chapter 3
Actions related to annexation
Development or adoption of plans or reports on extension of services; and Other actions that are related to local planning
Property Purchase
Short-term land use license (less than 7 days) involving no resource extraction or developed uses and conformity with applicable local permitting or land use regulations. Examples would include weddings, dog shows, photography shoots, charity fund raising events, etc.

5.2 PROPOSED LOCAL REGULATORY COMPLIANCE UNDER THIS PEIS

The REMB of DNRC would comply with all applicable city, county, state, and federal laws. These include local land use regulations, air and water quality laws, the Antiquities Act, and the Endangered Species Act. Additionally, requirements of other agency programmatic Plans and policies will apply. There are several state law exceptions that apply to state land including: (1) MCA 76-2-402, which applies when an agency proposes to use public land contrary to local zoning regulations; and (2) MCA 76-3-205(2), which exempts state land from subdivision requirements unless the division creates a second parcel for sale, rent, or lease for residential purposes. However, it should be noted the REMB, under this PEIS, intends to waive these rights of exemption.

When evaluating a project proposed for Trust Lands under any of the Alternatives, the REMB would analyze all issues, policies and relevant regulations. The items to be addressed and the level of analysis would vary, depending on the nature of the project, its geographic location and the particular economic, social and environmental context in which it occurs. In general, however, the REMB would:

- Develop programs and actions in consideration of the goals and policies of the local growth policy (comprehensive or master plan), as applicable.
- Evaluate each proposed action using the funnel filtration process as described in Chapter 2 of the PEIS. The filtration process provides a framework for decision-making that follows the intent of MEPA with respect to the evaluation of potential impacts of a proposed action on the natural/physical and socio-economic environments. This would determine if the proposal should move forward.
- Engage in public involvement as provided for in local land use regulatory processes.
- The REMB and its lessees, licensees and permit holders would follow all local land use regulatory processes (zoning and/or subdivision ordinances) as applicable.

5.2.1 Description of Local Government Policies, Processes and Regulations

At the local level, land development is subject to the following statutes:

5.2.1.1 Growth Policies (76-1-601,MCA)

A growth policy may cover all or part of the jurisdictional area and must include the elements listed in subsection (3) of the Statute by October 1, 2006. The extent to which a growth policy addresses the elements of a growth policy that are listed in subsection (3) is at the full discretion of the governing body.

A growth policy must include community goals and objectives, maps and text describing an inventory of the existing characteristics and features of the jurisdictional area, including land uses, population, housing needs, economic

conditions, local services, public facilities, natural resources and other characteristics and features as proposed by the planning board and adopted by the governing bodies. The growth policy must also include projected trends for the life of the growth policy for land use, population, housing needs, economic conditions, local services, natural resources and other elements proposed. In addition, a growth policy must include a description of policies, regulations, and other measures to be implemented in order to achieve the goals and objectives and

- a strategy for development, maintenance, and replacement of public infrastructure, including drinking water systems, wastewater treatment facilities, sewer systems, solid waste facilities, fire protection facilities, roads, and bridges
- an implementation strategy that includes
 - a timetable for implementing the growth policy
 - a list of conditions that would lead to a revision of the growth policy
 - a timetable for reviewing the growth policy at least once every 5 years and revising the policy if necessary
- a statement of how the governing bodies would coordinate and cooperate with other jurisdictions that explains:
 - if a governing body is a city or town, how the governing body would coordinate and cooperate with the county in which the city or town is located on matters related to the growth policy
 - if a governing body is a county, how the governing body would coordinate and cooperate with cities and towns located within the county's boundaries on matters related to the growth policy
- a statement explaining how the governing bodies would:
 - define the criteria in [76-3-608\(3\)\(a\) MCA](#)
 - evaluate and make decisions regarding proposed subdivisions with respect to the criteria in [76-3-608\(3\)\(a\) MCA](#)
- a statement explaining how public hearings regarding proposed subdivisions would be conducted

A growth policy may also:

- include one or more neighborhood plans. A neighborhood plan must be consistent with the growth policy
- establish minimum criteria defining the jurisdictional area for a neighborhood plan
- address the criteria in [76-3-608\(3\)\(a\), MCA](#)
- evaluate the effect of subdivision on the criteria in [76-3-608\(3\)\(a\) MCA](#)
- describe zoning regulations that would be implemented to address the criteria in [76-3-608\(3\)\(a\) MCA](#)

- identify geographic areas where the governing body intends to authorize an exemption from review of the criteria in [76-3-608](#)(3)(a) MCA for proposed subdivisions pursuant to [76-3-608](#) MCA

The planning board may propose and the governing bodies may adopt additional elements of a growth policy in order to fulfill the purpose of this chapter.

After adoption of a growth policy, the governing body within the area covered by the growth policy pursuant to [76-1-601](#) MCA must be guided by and give consideration to the general policy and pattern of development set out in the growth policy in the:

- authorization, construction, alteration, or abandonment of public ways, public places, public structures, or public utilities
- authorization, acceptance, or construction of water mains, sewers, connections, facilities, or utilities
- adoption of zoning ordinances or resolutions.

5.2.1.2 Zoning

- County Zoning – Zoning in unincorporated areas can occur by two methods: (1) the creation of a planning and zoning district, which must be a minimum of 40 acres, known as “Part 1 zoning”; or (2) the establishment of county zoning, which can apply to all or part of the unincorporated area, known as “Part 2 zoning,” but which requires the adoption of a growth policy. Public notification and a public hearing must be held prior to the adoption of either type of zoning.

1. Under Part 1 zoning, the board of county commissioners may create a planning and zoning district upon petition of 60 percent of the freeholders in the affected area. However, if freeholders representing 50 percent of the titled property ownership in the district protest the establishment of the district within 30 days of its creation, the board of county commissioners may not create the district. An area included in a district that is the subject of a protest may not be included in a zoning district petition for a period of one year.
2. Under Part 2 zoning, a board of county commissioners that has adopted a growth policy for the entire jurisdictional area may adopt zoning regulations for all or part of the jurisdictional area

76-2-203, MCA sets forth criteria and guidelines for zoning regulations as follows

- (1) Zoning regulations must be:
 - (a) made in accordance with the growth policy or a master plan, as provided for in [76-2-201](#)(2) MCA; and
 - (b) designed to:
 - (i) lessen congestion in the streets;
 - (ii) secure safety from fire, panic, and other dangers;
 - (iii) promote public health and general welfare;
 - (iv) provide adequate light and air;
 - (v) prevent the overcrowding of land;
 - (vi) avoid undue concentration of population; and
 - (vii) facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements.
- (2) Zoning regulations must be made with reasonable consideration, among other things, to the character of the district and its peculiar suitability for particular uses and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout the jurisdictional area.
- (3) Zoning regulations must, as nearly as possible, be made compatible with the zoning ordinances of the municipality within the jurisdictional area.

- Municipal Zoning – The municipal zoning enabling legislation is similar to that for counties. For example, zoning must also be “made in accordance with a growth policy,” interim zoning is authorized, a board of adjustment must be established, and the city or town council may provide for enforcement. Public notification and a public hearing must be held prior to the adoption of municipal zoning. Municipalities have, under certain conditions, the ability to extend the application of their zoning and subdivision regulations beyond their corporate limits in any direction, up to three miles for a city of the first class, up to two miles for a city of the second class, and up to one mile for a city or town of the third class. This authority is only conferred on municipalities that have adopted a growth policy, but does not apply in locations where a county has adopted a growth policy and accompanying zoning or subdivision regulations. Under these provisions, a municipality may enforce zoning or subdivision regulations as if the affected property were in its corporate limits. 76-2-304, MCA sets forth the purposes of municipal zoning as follows:

- (1) Zoning regulations must be:
 - (a) except as provided in subsection (3), made in accordance

with a growth policy; and

(b) designed to:

- (i) lessen congestion in the streets;
- (ii) secure safety from fire, panic, and other dangers;
- (iii) promote health and the general welfare;
- (iv) provide adequate light and air;
- (v) prevent the overcrowding of land;
- (vi) avoid undue concentration of population; and
- (vii) facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements.

(2) Zoning regulations must be made with reasonable consideration, among other things, to the character of the district and its peculiar suitability for particular uses and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout the municipality.

(3) Until October 1, 2006, zoning regulations may be adopted or revised in accordance with a master plan that was adopted pursuant to Title 76, chapter 1, before October 1, 1999.

5.2.1.3 Subdivision and Platting

Title 76, Chapter 3, of the Montana Code governs subdivision and platting (the Subdivision and Platting Act). Montana law requires the governing body of every county, city, or town to adopt and provide for the enforcement and administration of subdivisions. Thus, in contrast with zoning, which is optional, subdivision regulation is mandatory in Montana.

The statutes require that subdivision regulations be adopted by the governing body only after a hearing. Subdivision review is a two-part process, review of a preliminary plat and a final plat, which is recorded. There is also an abbreviated process for review of minor subdivisions. Major subdivisions are subject to a public hearing, with published notice and notice to adjoining property owners.

The statutes specify minimum content requirements for subdivision regulations, which include:

- provisions for an environmental assessment (exempt under limited circumstances, such as first minor subdivision)
- procedures for the submission and review of subdivision plats

- the form and content of preliminary plats and documents to accompany the final plats
- identification of areas unsuitable for subdivision due to natural or human-caused hazards
- prohibition of subdivisions for building purposes for areas within the 100-year floodway
- standards for the design and arrangement of lots, streets and roads, grading and drainage, water supply, sewage, and solid waste disposal that meet regulations adopted by the department of environmental quality, and the location and installation of utilities
- procedures for review of preliminary plats by affected public utilities and agencies of local, state, and federal government having a “substantial interest” in a proposed subdivision
- procedures for the administration of park and open-space dedication requirements
- provisions for the establishment and recording of ditch easements.

5.2.1.4 Sanitations in Subdivisions Act

Title 76, Chapter 4 of the MCA is the Sanitation in Subdivisions Act, which is intended to protect the quality and potability of water for public water supplies and individual wells. The act charges the Department of Environmental Quality (DEQ) with adopting rules, including sanitary standards, necessary for administration and enforcement of the act. The rules must provide the basis for approving subdivision plats for various types of water (including stormwater drainage), sewage facilities, and solid waste disposal, both public and private, and must be related to the size of lots; contour of land; porosity of soil; groundwater level; distance from lakes, streams, and wells; type and construction of private water and sewage facilities, and other facts affecting public health and quality of water for uses relating to agriculture, industry, recreation, and wildlife.

5.2.1.5 Floodplain and Floodway Management

Montana has a Floodplain and Floodway Management Act, MCA, Title 76, Chapter 5, and the lead state agency for administering it is the DNRC. Under MCA 76-301, local governments must adopt land-use regulations that meet or exceed minimum standards of the department in regards to controlling development in the designated floodplain or floodway. The department must enforce its own minimum

standards through a state permit system when the local government has failed to adopt such land-use regulations after receiving state notice.

Annexation – Title 7, Chapter 2, Parts 42 – 47

In all cases of annexation, services must be provided according to a plan provided by the municipality, except for: (1) garbage services if they are already provided; and (2) in first class cities when otherwise mutually agreed upon by the municipality and the real property owners to be annexed.

5.3 RELATIONSHIP OF LOCAL GOVERNMENT PROCESSES TO MEPA ANALYSIS

Tables 5-2, 5-3, and 5-4 use a checklist to show how local government processes may be analogous to and address the various elements in a MEPA analysis. The left side of the table lists elements typically addressed in the MEPA process, and the right side cites how the local government process(es) address these elements. Comments and information from the public and appropriate local, state and federal agencies are sought to enable an analysis of the impacts on the physical, biological, social and economic environment during these local government processes. It is understood that local regulations vary between jurisdictions and, as such, the complexity of the MEPA analysis would correspond to the complexity of local review. In some situations, many elements of MEPA review could be redundant to local review. In other situations, such as minor subdivisions in rural locations, additional MEPA analysis would be expected and necessary.

Table 5-2. PROJECT DEVELOPMENT	
ISSUE	LOCAL LAND USE POLICY/REGULATION
1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project.	GROWTH POLICY, ZONING, SUBDIVISION – Each of these regulations require public notification and involvement prior to adoption of local regulations. Project proposals that would amend existing regulations or involve major subdivisions would also require various levels of public notification and public hearings. Public involvement could include legal ads, letters to adjacent and affected property owners, posting signs on affected property, and public hearings before planning boards and elected officials. Additionally, Title 76-6-206, MCA, also requires that all conservation easements shall be subject to review prior to recording by the appropriate local planning authority for the county within which the land lies in order to minimize conflict with local comprehensive planning. This review is advisory in nature.
2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:	GROWTH POLICY, ZONING, SUBDIVISION – Other agencies with jurisdiction are notified during the review processes and provided with an opportunity to comment on draft growth policies or proposed zoning and subdivisions.

3. ALTERNATIVES CONSIDERED:	GROWTH POLICY, ZONING, SUBDIVISION – Alternatives are considered as part of developing growth policies by planning staff, the public and elected officials. Alternative zoning designations are also considered during the zoning process, and alternative subdivision features, such as design and density are considered during the subdivision review process.
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Table 5-3. IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactable or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations? Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, SUBDIVISION – General geological and soil information is gathered during the development of growth policies. More specific information is gathered for the environmental assessment portion of subdivision review as applicable to major subdivisions
5. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality? Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, ZONING, SUBDIVISION, FLOODPLAIN AND FLOODWAY MANAGEMENT – Information on water bodies, aquifers and floodplains is generally included within most growth policies. Site-specific information is more often required during the zoning and subdivision review processes. Any project proposed in a floodplain also requires detailed information.
6. AIR QUALITY: would pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)? Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, ZONING, SUBDIVISION – Regional air quality is generally identified during growth policy development. The transportation plan, a component of the growth plan in larger urban areas, must contain an air quality model to estimate transportation impacts. Site-specific air quality impacts are identified during zoning and subdivision review.
7. VEGETATION COVER, QUANTITY AND QUALITY: Would vegetative communities be permanently altered? Are any rare plants or cover types present? Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, ZONING, SUBDIVISION – “Vegetation” is often a major element of most adopted growth policies. Important plant communities are generally recognized, including riparian and wetland vegetation. Site specific information on vegetation is normally considered during zoning and subdivision review processes.

<p>8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish? Are cumulative impacts likely to occur as a result of this proposed action?</p>	<p>GROWTH POLICY, ZONING, SUBDIVISION – Habitat information is normally gathered from appropriate agencies for the growth policy and resource agencies are generally asked to review and comment on potential impacts of site-specific zoning and subdivision proposals.</p>
<p>9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetland? Sensitive Species or Species of special concern? Are cumulative impacts likely to occur as a result of this proposed action?</p>	<p>GROWTH POLICY, ZONING, SUBDIVISION – Same as # 8 above.</p>
<p>10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>GROWTH POLICY, ZONING, SUBDIVISION – Historical and cultural information is sought from local historic districts and the State Historic Preservation Office (SHPO) during growth policy development and zoning and subdivision review.</p>
<p>11. AESTHETICS: Is the project on a prominent topographic feature? Would it be visible from populated or scenic areas? Would there be excessive noise or light? Are cumulative impacts likely to occur as a result of this proposed action?</p>	<p>GROWTH POLICY, ZONING, SUBDIVISION – Some general information on prominent features is collected for growth policies, but more detailed information, including mitigation measures, are generally identified through the subdivision review process. Zoning considers the mix, location, and density of uses within a community, which has some relationship to aesthetic values. Some communities have design review ordinances that consider architecture and other aesthetic considerations.</p>
<p>12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Would the project use resources that are limited in the area? Are there other activities nearby that would affect the project? Are cumulative impacts likely to occur as a result of this proposed action?</p>	<p>GROWTH POLICY, ZONING, SUBDIVISION – Environmental resource demands are addressed during growth policy development. Growth policies and transportation plans typically use a 20 – year timeframe, but are updated more frequently (every 5 – 10 years, depending on the rate of change in an area).</p>

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract? Are cumulative impacts likely to occur as a result of other private, state or federal current actions w/n the analysis area, or from future proposed state actions that are under MEPA review (scoping) or permitting review by any state agency w/n the analysis area?	GROWTH POLICY, ZONING, SUBDIVISION – Other environmental documents are gathered and used during growth policy development, and also referenced and/or provided during zoning and subdivision review.
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Table 5-4. IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
14. HUMAN HEALTH AND SAFETY: Would this project add to health and safety risks in the area?	GROWTH POLICY, ZONING, SUBDIVISION – Public health and safety are considered throughout the process of developing growth policies and zoning and subdivision review. Health departments, emergency services and other appropriate agencies are asked to review and comment.
15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Would the project add to or alter these activities?	GROWTH POLICY, ZONING, SUBDIVISION – Growth policies identify areas appropriate and necessary for these activities. Zoning, which must comply with the growth policy, reflects these land use activities, and subdivision review criteria must also address the growth policy and zoning designations.
16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Would the project create, move or eliminate jobs? If so estimated number. Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, ZONING – Historical and estimated employment data is generally gathered for a growth policy and land use designations take this into account. The economics of a project are generally considered when projects involve a division of land.
17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Would the project create or eliminate tax revenue? Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, ZONING, SUBDIVISION – Growth policies identify historical and estimated future income data at the regional level. Specific impacts on the local tax base are generally considered during subdivision review.
18. DEMAND FOR GOVERNMENT SERVICES: Would substantial traffic be added to existing roads? Would other	GROWTH POLICY, ZONING, SUBDIVISION – Larger urban areas in Montana would also have a component of the growth policy that specifically addresses transportation. Evaluating demand for government services is an integral part

Table 5-4. IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
services (fire protection, police, schools, etc) be needed? Are cumulative impacts likely to occur as a result of this proposed action?	of all three processes.
19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	GROWTH POLICY, ZONING, SUBDIVISION – See response to # 13 above.
20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract? Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, SUBDIVISION – Existing and future recreational areas are identified in growth policies. Major subdivisions are subject to park and open-space dedication requirements.
21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Would the project add to the population and require additional housing? Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, ZONING, SUBDIVISION – Growth policies must include existing and future housing needs, based on population trends. Zoning designations, based on the growth plan, specify the location and density of housing units and other land uses. Location and density of lots is then set during the subdivision review.
22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	GROWTH POLICY, ZONING, SUBDIVISION – The population analysis in the growth policy examines population by race, age and sex. Potentially affected persons and groups are also considered during project review through the zoning amendment and subdivision review processes.
23. CULTURAL UNIQUENESS AND DIVERSITY: Would the action cause a shift in some unique quality of the area?	GROWTH POLICY, ZONING, SUBDIVISION – Identification of these impacts would primarily occur through comments received during the public comment portion of these processes.
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES: Is there a potential for other future uses? Is future use hypothetical? What is the estimated return to the trust. Are cumulative impacts likely to occur as a result of this proposed action?	GROWTH POLICY, ZONING, SUBDIVISION – These other impacts and potential uses would likely arise during the review of drafts of the growth policy and during the public comment phase of the growth policy, zoning and subdivision review.

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List of Agencies, Businesses, Groups, Organizations and Individuals Contacted

AERO
 Alliance for the Wild
 Rockies
 American Public Land
 Exchange
 American Wild Lands
 Anaconda Leader
 Anaconda Local Devel.
 Corp.
 Anaconda-Deer Lodge
 Planning
 Applied Communication
 Con
 Attorney General's Office
 Back Country Horsemen of
 Montana
 Back Country Horsemen--
 C.M. Russell
 Bear Paw Development
 Corp.
 Bearpaw Development
 Corp.
 Beaverhead Co. Resource
 Use Committee
 Beaverhead National
 Forest
 Belgrade Chamber of
 Commerce
 Belgrade Planning Dept.
 Berg Lumber Company
 Big Sky Upland Bird Assn.
 Bigfork Volunteer Fire
 Dept.
 Billings Chamber of
 Commerce
 Billings Public Library
 Billings Rod & Gun Club
 Biology Department
 Bitter Root Land Trust
 Bitterroot Chamber of
 Commerce
 Bitterrooters for Planning
 Blackfeet Tribal Business
 Council
 Blue Ribbon Coalition
 BN Santa Fe Railway Co.
 Boise Cascade Corporation
 Bozeman Chamber of
 Commerce
 Bozeman Daily Chronicle

Bozeman Public Library
 Brand S Lumber Company
 Bruce Bugbee & Associates
 Bureau of Land
 Management
 Butte LDC
 Butte Silver Bow Weed
 District
 Butte-Silver Bow Planning
 C.A.R.E.
 Canyon Coalition
 Carbon County Weed
 District
 Cascade County Planning
 Cascade County Weed
 District
 Cascade County Weed
 Mgmt. District
 Cascade Timber Company
 Char-Koostra News
 Chippewa Cree Tribal
 Council
 Citizens for a Better
 Flathead
 City of Helena/L&C
 County
 City of Lewistown
 City of Red Lodge
 City of Whitefish
 City Planning
 City-County Planning
 Clark Fork Coalition
 Coal./Approp. Mgmt. Of
 State Lands
 Cold Mountain Cold Rivers
 Community Development
 Dept
 Community Dev & Planning
 Community Development
 Services
 Concerned Citizens for
 Cottonwood
 Confederated Salish &
 Kootenai Tribes
 Corvallis Public Schools
 County School
 Superintendent
 Crow Tribal Council
 Crow Tribal News

CS&K Tribes Natural
 Resources Dept.
 Daily InterLake
 DAMSCHEN-ENTRANCO
 Darby Public Schools
 Deer Lodge Schools
 Defenders of Wildlife
 Dept Planning &
 Community Dev
 Dept Planning &
 Community Developme
 Dept. of Sociology
 DEQ
 Dillon Public Library
 DNRC
 DNRC Forest Mgmt. Bureau
 Dwight Harrison Ranch Co.
 E. Sanders County
 Sportsmens Club
 Eastern Plains RC & D
 Ecology Center
 Economic Development
 Economics Department
 Environmental Health
 Planning
 Environmental Quality
 Council
 Extension Service - Mineral
 County
 F.H. Stoltze Land & Lumber
 Co.
 F.H.Stoltze Land & Lumber
 Co.
 Fallon County
 Ferguson Enterprises
 Fischer & Associates
 Fish, Wildlife & Parks
 Fish, Wildlife & Parks -
 Region 1
 Fish, Wildlife & Parks -
 Region 2
 Fish, Wildlife & Parks -
 Region 3
 Fish, Wildlife & Parks -
 Region 5
 Fish, Wildlife & Parks -
 Region 6
 Fish, Wildlife & Parks -
 Region 7
 Five Valleys Land Trust

Flathead Audobon Society
 Flathead Basin Commission
 Flathead Forest Watch--
 Tally Lake
 Flathead Land Trust
 Flathead National Forest
 Flathead Regional
 Development
 Flathead Regional Dvmt
 Flathead Regional
 Planning
 Flathead Resource
 Organization
 Flathead Valley
 Community College
 Flathead Wildlife, Inc.
 Fort Belknap Community
 Council
 Fort Belknap Newsletter
 Fort Peck Tribes
 Fred Bell Real Estate
 Friends of the Bitter Root
 Friends of the Wild Swan
 GAIN
 Gallatin Co. Planning Dept.
 Gallatin County Planning
 Gallatin Development
 Corporation
 Gallatin Valley Land Trust
 Gateway Economic Devel.
 Glacier Reporter
 Glendive Chamber EDC
 Gough, Shanahan, Johnson
 & Waterman
 Governor's Office
 Great Falls Chamber of
 Commerce
 Great Falls City-County
 Planning
 Great Falls Tribune
 Great Northern Devel.
 Corp.
 Greater Yellowstone
 Coalition
 Hampstead Partners
 Harold Young & Associates
 Headwaters RC &D
 Helena Chamber of
 Commerce
 Helena Public Library
 High Plains Development
 Authority
 High Plains News Service
 High Plains Warrior

Hill County Health &
 Planning
 Hill County Weed District
 Hungry Horse News
 Intermountain Forest
 Industries
 JGA Architects, Engineers
 Jim McGill Logging
 Jobs Now
 KAJ TV
 Kalispell Area Chamber of
 Commerce
 Kalispell Public Library
 KALS
 KANA / KGLM
 KATL
 KATQ
 KBKO
 KBLL
 KBOW / KOPR
 KBOZ
 KCAP / KZMT
 KCFW TV
 KCGM
 KCTZ TV
 KDBM
 KDRG
 KDWG / KCTR
 KECI TV
 KEIN / KLFM
 KEMC
 KFBB TV
 KFLN
 KGEZ
 KGHL / KIDX
 KGLE
 KGLT
 KGRZ / KDXT
 KGVW
 KHDN
 KHKR
 KHMT / KSCI TV
 KIKC
 Kinney Consulting Services
 KLCB / KTNV
 KLCY / KYSS / KGVO
 KLTZ / KLAN
 KLYQ / KBMG
 KMMR
 KMMS / KSCY
 KMON / KLFM
 KMSM
 KMSO
 KMTA / KMCM

KMTF TV
 KMTX
 KOFI
 KOJM / KPQX
 KPAX TV
 KPRK
 KQDI
 KQRK
 KRTV
 KSEN / KZIN
 KTGF TV
 KTMF TV
 KTVH TV
 KTVM TV
 KTVQ TV
 KUFM
 KULR TV
 KURL
 KUSM TV
 KWYS
 KXEI
 KXGF / KAAK
 KXGN / KDZN
 KXGN TV
 KXLF TV
 KXLO / KLCM
 KXLT
 KXTL / KQUY / KAAR
 KYVA / KRRX / KBLG
 KZLO / KOB
 Lake Co. Community Devel.
 Lake County
 Land Use & Planning
 Lee Newspapers
 Legislative Council Library
 Lewis & Clark County
 Planning
 Lewistown News-Argus
 Lincoln Co. Econ. Devel.
 Council
 Little Shell Tribe of
 Chippewa Indians
 Livingston Enterprise
 Livingston Planning Dept
 Lolo National Forest
 Louisiana Pacific
 Corporation
 Louisiana-Pacific
 Corporation
 Lubrecht Forest
 Maclay Law Firm
 Madison Co. Planning
 Office
 Madison County Planning

Madison County Weed
 Board
 MAEDC
 Marchesseau Ranches
 Matson's Laboratory, LLC
 MDHES/WQD
 MDOC
 Meagher County Weed
 Program
 Medicine Lake Outfitters
 Medicine River Canoe Club
 MEIC
 Michigan Tech University
 Mid-Yellowstone Land Trust
 Miles City Public Library
 Mineral Independent
 Mineral Management
 Division
 Missoula County Public
 Schools
 Missoula Independent
 Missoula Office of
 Planning
 Missoula Public Library
 Missoulain
 MJB Contracting, Inc.
 Montana 4x4 Association
 Montana Assn. Of
 Conservation Districts
 Montana Association of
 Conservation Districts
 Montana Association of
 Realtors
 Montana Attorney
 General's Office
 Montana Audubon Council
 Montana Audubon Society
 Montana Conservation
 Voters Education Fund
 Montana Dept. of
 Agriculture--TSB
 Montana Ecosystem
 Defense Council
 Montana Ecosystems
 Defense Council
 Montana Environmental
 Info. Ctr.
 Montana Environmental
 Information Center
 Montana Farm Bureau
 Montana Farmers Union
 Montana Fire Bureau
 Montana Fiscal Forums
 Montana Land Reliance

Montana Logging Assn.
 Montana Logging
 Association
 Montana Natural Heritage
 Program
 Montana Old Growth
 Project
 Montana Outfitters &
 Guides Assn.
 Montana River Action
 Montana Smart Growth
 Coalition
 Montana Snowmobile Assn.
 Montana Standard
 Montana State
 Leaseholders Assn.
 Montana State Library
 Montana Stockgrowers
 Assn.
 Montana Trout Unlimited
 Montana Wilderness Assn.
 Montana Wilderness Assn.-
 -Bitterroot
 Montana Wilderness
 Society
 Montana Wood Products
 Assn.
 Montanans for Multiple
 Use
 MonTRUST
 MPC
 MRA
 MSBA
 MSU College of
 Technology
 MSU Extension Service
 MSU Lincoln County
 Extension
 MT Assoc. of Realtors
 MT Business Capital Corp.
 MT Chamber of Commerce
 MT Coalition for Approp.
 Mgmt. Of State Lands
 MT Community Devel.
 Corp.
 MT Dept of Commerce
 MT Dept. of Agriculture
 MT Rural Devel. Partners,
 Inc.
 National Wildlife
 Federation
 Natural Resources
 Conservation Svce.
 Newsletter

Ninemile Ranger District
 North Fork Improvement
 Assn.
 North Fork Preservation
 Assn.
 Northern Broadcasting
 Systems, Inc.
 Northern Cheyenne Tribal
 Council
 Northern Plains Resource
 Council
 NW Regional RC & D
 OEA Research
 Office of Planning &
 Grants
 Office of Public Instruction
 Office of Senator Conrad
 Burns
 Office of Senator Max
 Baucus
 Office of the Legislative
 Auditor
 Owens & Hurst Lumber Co.
 Park City Environmental
 Council
 Park Conservation District
 Park County Economic
 Devel.
 People for Elk
 People for the West
 PhillCo Economic Growth
 Council
 Plains Public Schools
 Plains Schools
 Plan Helena
 Planning Board
 Planning Board/Zoning
 Planning Department
 Plum Creek Land Use
 Planning
 Plum Creek Manufacturing
 Plum Creek Marketing Inc.
 Plum Creek Timber Co.
 Plum Creek Timber Co., Inc.
 Plum Creek Timberlands
 Ponderosa Snow Warriors
 Porteen & Associates
 Prairie Co. Econ. Devel.
 Council
 Public Lands Access Assoc.,
 Inc.
 Public Lands Association
 Pyramid Mountain Lumber

Pyramid Mountain Lumber Co.
Pyramid Mountain Lumber, Inc.
Ravalli Co. Econ. Dev. Authority
Ravalli Co. Fish/Wildlife Assoc.
Ravalli County
Ravalli County Fish & Wildlife Assn.
Richland County Weed District
Robert Peccia & Associates
Rocky Mountain Elk Foundation
R-Y Timber, Inc.
SBC Realty Partners
School of Forestry
SE Montana Sportsmen's Assn.
Secretary of State's Office
Seeley Lake Public School District
Senator Max Baucus
Shea Ranch, Inc.
Sheridan County Planning
Sidney Chamber of Commerce
Sieben Ranch Co.
Skyline Sportsmen
Smart Growth Missoula
Soil & Water Conservation Society
Sonoran Institute
Southeastern MT Devel. Corp.
Southeastern Sportsmen's Assn.
St. Patrick Hospital
State Auditor's Office
State Historic Preservation Office
State Land Coalition
State of Montana
Stillwater County Planning
Stimson Lumber Co.
Sublette County Planning
Swan View Coalition
Sweet Grass County Planning
Sweet Grass County Weed Coordinator

Target Range Public Schools
Target Range School
Tee Bar Ranch
Teton County Develop. Corp.
The Hunters Alliance
The Maureen and Mike Mansfield Library
The Nature Conservancy
Thompson Falls Land Alliance
Tranquil Acres
Travel Montana
Trout Unlimited
U.S. EPA--Montana Office
U.S. Fish & Wildlife Service
U.S. Senator Conrad Burns
UM
Upper Missouri Breaks
Audubon
US West
USDA Forest Service R-1
USDA/RD
USDI Bureau of Land Management
USDI Bureau of Land Mgmt.
USFS Bitterroot National Forest
USFS Flathead National Forest
USFS Gallatin National Forest
USFS Lewis & Clark National Forest
USFS Lolo National Forest
Weed District--Broadwater County
Weed District--Missoula County
Weed Program - Silver Bow County
Western Environmental Trade Assoc.
Western Montana College
WETA
Wheatland Co. Econ. Devel.
Whitefish County Water & Sewer District
Whitehall Schools
Wilderness Society
Wing Logging

Wotanin Wowapi
Yellow Bay Research Station
Yellowstone Co. Weed Control
Yellowstone County Planning
Jane Adams
Rob Ament
Steve Antonioli
Steve Barrett
Roger Bergmeier
Kathy Bramer
Bud Clinch
Bob Brown
Wayne Finch
Aimee Grmoljez
Harley Harris
Greg Haegele
Patrick Heffernan
Cary Hegreberg
Linda Mcculloch
James Kranz
Julie Lapeyre
Mike Mcgrath
Scott Mcleod
Neil Meyer
Jeff Hagener
Greg Munther
Louis Hawkes
Monte Cooper
Craig Sharpe
John Bloomquist
Ric Smith
Jamie Williams
Dale Burke
Wendy Ninteman
Paul Putz
Joe Hovenkotter
Arlene Montgomery
Jim Morrison
John Morrison
Graden Oeherich
Brian Pilcher
Judy Martz
Gordy Sanders
Gregg Schildwachter
Melissa Shannon
Jerry Sorenson
Malcolm Thompson
Steve Thompson
Tom Tintinger
Nancy Warren
Dan Whyte

Ryan Shaffer
Rebecca Watson
Richard Wackrow
Terry Albrecht
Don Allen
John Alton
James Armstrong
Rod Ash
Jack Atcheson
Peggy Atchley
George Bailey
Beth & Tim Baker
Tara Barrett
John Baucus
Brian Beal
Timothy Bechtold
Dale Becker
Margaret Beer
Mrs. Mary Beer
Jim Belsey
Paul Berg
Sharon Bergman
Kim Birsch
Martha Bishart
Clint Blackwood
D. L. Blank
Dan Blomquist
Lex Blood
Bob Boeh
Rex Boller
John Bonnicksen
Tim Border
Jim Bramer
James Bray
Margaret Brockmann
Vivian Brooke
Neil Brown
Bob Brown
T. Millar Bryce
Steven Bryson
Ronald Buentemeier
Bruce Bugbee
Bob Bushnell
Janet Camel
Rick Cannada
Dan Cantrell
Bob Carlson
J. Carter
Keith Christian
Chris Clancy
Monte Clemow
Ben Cohen
Ferne Cohen
Robert Cole

Gerald Cole
Anthony Colter
Susan Colvin
Adena Cook
Judy Cornell
Elaine Corrigan
Elna Darrow
George Darrow
Jerry Dimarco
Susan Donnelly
Daron Duncan
William Dwelle
Jim Edwards
Dave Jackson
David Evenson
William Eystad
Jean Ferguson
Donna Finstad
Tom France
Chris Frandsen
Harvey Fredericksen
Beth Furbush
Brad Gestring
Peter Gleim
Hank Goetz
Stormy Good
Ralph Goode
Peter Graziano
Joe Gutkoski
Dr. Jim Habeck
David Hadden
Bill Hagen
Jim Hagenbarth
Harold Hale
Larry Hamilton
Robin Hamilton
Keith Hammer
Thomas Harding
Joe Unterreiner
Fern Harmon
Daniel Harper
C. Hauptman
Delbert Hawkins
Brace Hayden
Jon Heberling
John Hebnes
Bonnie Heidel
Tom Heintz
Betty & George Heliker
Joe Helle
Bill Heasley
Scott Hicswa
Jeff Hindoi
John Hodnick

Marcia Hogan
Ira Holt
Robert Holt
Joel Holtrop
John Hossack
Harold Hunter
Phoebe Hunter
Warren Illi
Reuel Janson
Jim Jensen
Jean Johnson
Merriel Johnson
Horace Jones
Donald Julian
Kahnstamm
Anne Katsaris
Nathan Kauffman
Sheila Keller
Leroy Kelly
Stephen Kelly
Steve Kelly
Steve Kenley
Melvin Ketland
Jack Kirkley
Ken Knudson
Rem Kohrt
Bert Kraft
Harry Lafriniere
Larry Laknar
Dan Lechefsky
William Leonard
Stuart Lewin
Thorn Liechty
John Lipinski
Bob Logan
Robert Lucas
Andy Lukes
Leaf Magnuson
David Majors
Bill Maloit
John Mandzak
Robert Marchesseault
Gladys Martinell
Lisa Mascho
John McBride
Ward McCartney
Charles McCarty
Wally McClure
Steve Mccool
Floyd Mccubbins
Jim Mcdermand
Harold Mcdowell
Jim McGill
Sandy McIntyre

Kemper McMaster
Alan Mcquillan
Bruce Measure
Jan Metzmaker
Don Michels
Daniel Miles
Chris Miller
Neal Miller
Doris Milner
Brent Mitchell
Karen Mitchell
Craig Mohr
Ric Molen
Ron Moody
Gary Moon
Larue Moorhouse
William Morgan
Sam Morigeau
John Mortenson
Dee & Lavera Morton
Jeff Mosley
Barbra Mullin
Linda Mycek
Joel Nelson
John Nesser
Bob Habeck
Richard Southwick
Donald Nettleton
Mark Nicholson
Stanley Nicholson
Cecil Noble
Bonny Ogle
Randall Ogle
Jim Miller
Keith Olson
Peggy Trenk
Tracy Olson
Florence Ore
Bill Otten
Jerry Parker
Pam Parsons
Charlie Patton
James Phelps
Ronald Pierce
Steve Potts
Thomas Power
Ed Prach
John Puckett
Russ Ramlow
Doug Rand
Ann Rauser
Catherine Ream
Tarn Ream
Dave Remington

Mary Reynolds
Becky Richards
Candy Richter
Roger & Olive Robison
Tim Rollins
Bill Roney
Mark Rotar
Tim Ryan
Gary Ryti
Dale Bosworth
Robert Sawyer
Peggy Schmidt
Tony Schoonen
Franklin Schroeter
Joan Schumaker
Kathy Shaver
Mark Sheets
Steve Shelly
E. Smith
Judy Smith
Jeanne-Marie Souvigney
Rob St. Clair
Harold Stepper
Lory Stevenson
Bob Stone
Ed Stoots
Jay And Eve Stuckey
Dean Sturz
Rhonda Swaney
Vern Swanson
Nancy Sweeney
Tim Tanberg
Steve Taylor
James Thill
Ginger Thomas
Ross Titus
Dave & Ruth Torrence
Sara Toubman
Steve Tralles
Jack Tuholske
Terry Turner
Jean Uriaui
Tony Veazey
Mike Volesky
Greg Waldrop
Michael Ware
Vicki Watson
Robert Weaver
Douglas Webber
Jeff Webber
Jerry Weber
James Welsh
Dave Whitby
George Widener

D. Wilson
Larry Wilson
Robert Wilson
Jim Wing
Gary Wolfe
Lorrie Woods
Wayne Worthington
Beverly Yager
William Yeats
Larry Youmans
John Youngberg
Mike Kupelik
Jim Carkulis
Christina Boyle
David Smith
Tim Ryan
Rick Evans
Margaret Morgan
Grant Parker
Todd Everts
Zak Anderson
Florence Anderson
George Bailey
Evan Barrett
Teddy Beebe
Mark Simonich
Vicky Bohlig
Larry Bonderud
Anne Boothe
Travis Brazill
Webb Brown
Cathy Burwell
Mike Carlson
Rosalie Cates
Kathryn Chioutsis
Penny Copps
Richard Crouch
Jim Davison
Emil Erhardt
Paul Tuss
Bernice Hash
Dick King
Billie Lee
Robert Leigland
Steve Myhr
Gloria O'rourke
Jim Plum
Sharon Rau
Linda Reed
Lynn Robson
Barry Roose
Renata Schroepfel
David Schwarz
Jim Smitham

Steve Snezek
Chuck Sperry
Thomas Swenson
Connie Ternes-Daniels
Linda Twitchell
Sandra Woldstad
Kent Wood
Debra Youngberg
Mayree Flowers
Marga Lincoln
Stuart Brandborg
Thompson Smith
Heather Mumby
Janet Ellis
Jim Barrett
Stephen Hendricks
Lin Smith
Warren Kellogg
Burt & Mary Sugarman
Jennifer Ferenstein
Dave Mceldery
Jay Wentz
Glenn Rickett
Gordon Schlepp
Franklin Slifka
Ralph Pomnichowski
Liz Harris
John Swope
Wes Synness
Rody Holman
Harold Young
John Gibson
Vince Fischer
Roger Schmidt
Gary Sloan
Ben Long
Raymond Frey
William Parker
J. Henderson
Anne Maclay
Helena Maclay
J.L. Ashmore
Reuel Jonson
Darlene Grove
Jack Jones
Dennis Espeland
Monte Sipe
John Moodry
Paul Sihler
Paul Georgeanne
Stacey Barta
Doug Soehren
Verda Swenson
Patricia Hogan

Gary Matson
Dave Russell
Steve Funke
Jim Manley
Terry & Dennis Divoky
Jobe
Mike & Hia Chapin
Jeanne & Dan Olson
Richard Hopkins
Anne Cossitt
Art Loendorf
Carol Mosher
Charles Hurin, Jr.
Betsy Forbes
Gary & Debby Gunderson
Aart Dolman
Lon Holzheumier
Jenny Yoneji
Patrick Boyd Stadley
Marjorie & Dave Maloney
Wade Crouch
Mike Parker
Dee Goss
Chris Ebeling
Gerry Jennings
Michael Hennessy
Bill Thomas
D. Starshine
Lauren Dundee
Helen Comer
Mark Good
Karen Davidson
Paul Edwards
Anne Hedges
Will Boland
Robert Rasmussen
Bob Kiesling
Candace West
Gayle Shirley
Ed Tinsley
Clayton Floyd
Charlotte & Jack Kress
Rj Degroot
Jane Peranteau
Jann Clouse
David & Carolyn Walsh
David & Marilyn Harmon
Diane Conradi
Marty Michelson
Don Schwennesen
Roland Frey
Clarence Taber
Jerry Giles
Brad Murfitt

Kelly Lu
Doris Fischer
Steve Kelly
John Shepard
Richard Gotshalk
Janis Moree
Duane Fedinand
Daniel Watson
Doug Habermann
Lauren Buckley
Alice Miller
John Shepard
Dick Spalding
Pat & Bruce Tucker & Weide
Bob Vogel
Pamela Converse
Randy Gray
James Freeman
Toddy Perryman
Tim Davis
Barb Beck
J. David Slovak
Monty Rathie
Cal Cumin
Mark Giese
Sue & Jim Brown
Georgeanne Paul
Todd Breitenfeldt
Shirley Barrick
Bob Storer
Jack Eggensperger
Dan Rude
Anne & Greg Morely
Jim Richard
Sandy Fischer

ACRONYMS

ACOE	U.S. Army Corps of Engineers
AQRV	Air Quality Related Value
ARM	Administrative Rules of Montana
AUM	Animal Unit Month
BBER	U of M Bureau of Business and Economic Research
BLM	U.S. Bureau of Land Management
BMP	Best Management Practices
CE	Categorical Exclusion
CECRA	Comprehensive Environmental Cleanup and Responsibility Act (state)
CERCLA	Comprehensive Environmental Response, Compensation and Cleanup Act, also called Superfund (federal)
CFS	Cubic Feet per Second
CLO	Central Land Office, DNRC
CO	Carbon Monoxide
DEIS	Draft Environmental Impact Statement
DEQ	Montana Department of Environmental Quality
DNRC	Montana Department of Natural Resources and Conservation
DOE	U.S. Department of Energy
EA	Environmental Assessment
EIS	Environmental Impact Statement
ELO	Eastern Land Office, DNRC
EPA	U.S. Environmental Protection Agency
EQC	Environmental Quality Council
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FTE	Full Time Equivalent
FWP	Montana Department of Fish, Wildlife & Parks
FY	Fiscal Year
GIS	Geographical Information System
HCP	Habitat Conservation Plan
ICC	Interstate Commerce Commission
ID	Identification
ITP	Incidental Take Permit
MAAQs	Montana Ambient Air Quality Standards
MAP	Montana Association of Planners
MCA	Montana Codes Annotated
MDEQ	Montana Department of Environmental Quality
MDFWP	Montana Department of Fish, Wildlife and Parks
MDHES	Montana Department of Health and Environmental Services
MDPHHS	Montana Department of Public Health and Human Services
MDOA	Montana Department of Administration
MDOC	Montana Department of Commerce
MDT	Montana Department of Transportation
MEPA	Montana Environmental Policy Act
MNHP	Montana Natural Heritage Program
MPDES	Montana Pollutant Discharge Elimination System
MSIS	Montana Sanitation in Subdivision Act
MSPA	Montana Subdivision and Platting Act

MWPCA	Montana Water Pollution Control Act
NAAQS	National Ambient Air Quality Standards
NELO	Northeastern Land Office, DNRC
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NO₂	Nitrogen Dioxide
NPS	National Park Service
NPV	Net Present Value
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWLO	Northwestern Land Office, DNRC
O₃	Ozone
OSHA	Occupational Safety and Health Agency
Pb	Lead
PCI	Per Capita Income
PCTC	Plum Creek Timber Company
PDR	Purchase of Development Rights
PEIS	Programmatic Environmental Impact Statement
PILT	Payment in Lieu of Taxes
PM-2.5	Particulate Matter with a diameter of 2.5 microns or less
PM-10	Particulate Matter with a diameter of 10 microns or less
PSD	Prevention of Significant Deterioration of Air Quality
REIT	Real Estate Identification Team
REMB	Real Estate Management Bureau
RFP	Request for Proposal
RID	Rural Improvement District
RMS	Resource Management Standards
ROD	Record of Decision
ROI	Return on Investment
RUL	Recreational Use License
SCD	Sufficient Credible Data
SFLMP	State Forest Land Management Plan
SHPO	State Historic Preservation Office
SID	Special Improvement District
SIP	State Implementation Plan (for air quality)
SLO	Southern Land Office, DNRC
SMZ	Streamside Management Zone
SO₂	Sulfur Dioxide
SOSC	Species of Special Concern
SRUL	Special Recreational Use License
SWLO	Southwestern Land Office, DNRC
T&E	Threatened and Endangered Species
TDR	Transfer of Development Rights
TLMD	Trust Land Management Division, DNRC
USDA	United States Department of Agriculture
USDI	United States Department of Interior
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

GLOSSARY

Air Quality Related Value (AQRV)- a feature or property of a class I, class II, or class III PSD area other than visibility that a state or Indian tribe finds may be affected by air pollution. General categories of air quality related values include odor, flora, fauna, soil, water, geologic features, and cultural resources.

Alkaline: A measure of carbonate accumulation indicated by a high pH.

Alluvium: Sediment deposited by running water.

Andesite: A volcanic rock composed of andesine.

Animal Unit Month (AUM): The number of animals times the number of months they graze. An “animal unit” is a cow with calf; other animals count as different numbers of animal units, e.g., five sheep with lambs’ count as an animal unit. Number of AUMs is stipulated in grazing leases.

Argillite: A rock that is slightly harder than claystone and softer than shale.

Asset Management: The active management of the trust’s assets under a portfolio management mandate for the purpose of increasing the portfolio’s value. Synonymous with portfolio management.

Badlands: A region nearly devoid of vegetation where erosion has cut the land into an intricate maze of narrow ravines, sharp crests and pinnacles.

Bedrock: Solid rock exposed at the surface or covered with unconsolidated materials.

Best Management Practices (BMP): Voluntary guidelines prescribed as minimum water quality protection standards for forestry operations. BMPs, if properly designed and applied, can limit non-point pollution.

Biodiversity or Biological Diversity: The variety of life and its processes. It includes the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur (From Keystone Center 1991).

Cadastral: A graphic representation of land ownership and or title and associated [attributes](#)

Calcareous: Containing calcium carbonate.

CAMA: Computer Assisted Mass Appraisal – database maintained by the Montana Department of Revenue with residential and commercial property tax information

Categorical Exclusion: Categorical exclusion refers to a type of action that does not individually, collectively, or cumulative require an Environmental Assessment (EA) or Environmental Impact Statement (EIS), as determined by rulemaking or programmatic review.

Cirquelands: A deep, steep-walled recess in a mountain, caused by glacial erosion.

Claystone: Clay hardened into rock.

Climax Community: That point in the development of a biotic community when the changes that normally occur in ecological succession cease. The main biotic components are not overthrown by new invaders. No new species become dominant in the biotic community. The environmental conditions of the habitat are relatively stabilized. (After Woodbury 1954. In: Schwarz et al. 1976)

Coarse woody debris, down woody material: Dead woody material such as stems or limbs, generally larger than 3 inches diameter.

Commercial: A proposed land use category that includes retail businesses, offices (private and public), service establishments, resort recreation, communication sites, and other similar uses that may be recognized a "commercial" in local zoning regulations. In additions, "raw" or undeveloped properties might also be identified for their potential commercial use through a highest and best use analysis.

Conservation: A proposed land use category that generally includes lands that have been purchased or leased to secure long-term rights for open space, preservation of habitat, natural areas, or other conservation purposes.

Conservation Land: Includes Federally designated areas such as National Parks and Monuments, Wilderness Areas, Wild and Scenic Rivers, Wildlife and Game Refuges, and lands protected by either Public/Private Conservation Easements.

Crustose lichen: A non vascular plant appearing like a crust.

Developer: A private or public entity that assembles the necessary resources and conducts activities to facilitate changing uses on a particular tract or tract of land.

Digital Elevation Model: A digital representation of a continuous variable over a two-dimensional surface by a regular array of z values referenced to a common datum. Digital elevation models are typically used to represent terrain relief. Also referred to as 'digital terrain model' (DTM).

2. An elevation database for elevation data by map sheet from the National Mapping Division of the U.S. Geological Survey (USGS).

3. The format of the USGS digital elevation data sets.

Dolomite: A common rock-forming mineral.

Drainage Basin: the land drained by a river system. See watershed.

Early-successional species (Seral, or Early-seral, species): A plant species associated primarily with an early stage in the successional development of a biotic community.

Easement: A right created by grant, reservation, agreement, prescription, or necessary implication, which one has in the land of another.

Economic Analysis: A process by which an activity is evaluated in terms of its effects on the market in which it is located, typically measured in terms of jobs created, services required and financial impacts on the community

Economic Impacts: the effects that result from an economic activity including but limited to the creation of jobs, the derivation of tax revenue, the cost of providing services and infrastructure, and the impacts to the natural and socio-economic environment

Ecotone: A transition zone between two habitats or communities.

Enabling Act: The act by which land was granted by congress to the state and held in trust for the support of common schools.

Endangered Species: A plant or animal species whose prospects of survival and reproduction are in immediate jeopardy. Its peril may result from one or many changes: loss of habitat, overexploitation, predation, competition, disease, or even unknown reasons. An endangered species must have help, or extinction may follow. It must be designated in the Federal Register by the appropriate Secretary as an "endangered species." (Schwarz et al. 1976)

Endangered Species Act (ESA): the Act that required consultation with the Fish and Wildlife Service (Interior) if practices on National Forest System lands may impact a threatened or endangered species (plant or animal). Direction is found in FSM 2670.

Environmental Impact Statement (EIS): A document in which anticipated environmental effects of a planned course or action or development are evaluated. The Montana Environmental Policy Act (MEPA) requires that such statements be prepared first in draft and then in a final form. An EIS includes the following points: (1) the environmental impact of the proposed action, (2) any adverse impacts which cannot be avoided by the action, (3) the alternative courses of action, (4) the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity, (5) a description of the irreversible and irretrievable commitment of resources which would occur if the action were accomplished. (After Schwarz et al. 1976)

Environmental Quality Council (EQC): A 13 member legislative council that coordinates and monitors State policies and activities that affect the quality of the environment.

Entitlement: An improvement or action that increases the underlying value of the land to which it is applied. Entitlements may include the addition of physical infrastructure, land use designations, and land use authorizations such as zoning

Forb: 1. Any herbaceous plant other than those in the Gramineae (true grasses), Cyperaceae (sedges) and Juncaceae (rushes) families—i.e., any non-grass-like plant having little or no woody material on it. (After Amer. Soc. Range Manage. 1964)
2. A palatable, broad-leaved, flowering herb whose stem, above ground, does not become woody and persistent. (Grim and Hill 19740 (Schwarz et al. 1976)

Forecasts: Predictions of future economic activity

Full-time Equivalent (FTE): A measure of number of personnel employed. One FTE is equal to one person working a 40-hour week.

Funnel Filter: A process to identify specific land tracts that may be suitable for residential, commercial, industrial, or conservation uses.

Geocode: The traditional definition is the process of identifying the coordinates of a location given its address. For example, an address can be matched against a TIGER street network to determine the location of a home. Also referred to as address geocoding. In the context of our use in this process it refers to the theoretically unique identifier for each parcel in the Montana Cadastral database.

Geographic data: The locations and descriptions of geographic features. The composite of spatial data and descriptive data.

Geographic database: A collection of spatial data and related descriptive data organized for efficient storage and retrieval by many users.

Geomorphic: Pertaining to the general configuration of the earth's surface.

GIS: Geographic information system. An organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.

Glacial till: Unstratified glacial drift of clay, sand, and gravel, forming poor subsoil impervious to water.

Glacier, glacial, glaciated: A mass of ice that moves in a definite direction and formed by the compression of ice; features created by a glacier; terrain molded by a glacier.

Gneiss: A coarse grained rock in which bands of granular material alternate with bands of mica.

Grid: A geographic data model representing information as an array of equally sized square cells arranged in rows and columns. Each grid cell is referenced by its geographic x,y location. See also [raster](#) and [grid cell](#).

Grid cell: A discretely uniform unit that represents a portion of the Earth, such as a square meter or square mile. Each grid cell has a value that corresponds to the feature or characteristic at that site, such as a soil type, census tract, or vegetation class.

Growth Policy: Growth policies (formerly known as comprehensive or master plans) provide overall guidance to local governments in the growth and development of their communities. The primary focus of growth policies is on land uses, both existing and projected.

Habitat Conservation Plan (HCP): The HCP will address those lands that provide habitat for species currently listed or those that could be listed under the Endangered Species Act (ESA). The HCP offsets harm caused by lawful activities, such as forest management practices, by promoting conservation measures to minimize or mitigate impacts to threatened and endangered species.

Hydrogeomorphology: The science relating to the geographical, geological and hydrological aspects of water bodies and changes to these in response to flow variations and to natural and human-caused events such as heavy rainfall or channel straightening.

Hydrology: A science dealing with the properties, distribution, and circulation of water, specifically the study of water on the surface of land, in the soil and underlying rocks, and in the atmosphere, with respect to evaporation and precipitation. (After Webster 1963 In: Schwarz et al. 1976)

Igneous rocks: Formed by the solidification of molten or partially molten rock.

Incidental Take Permit: ???? Do we need this???

Industrial: A proposed land use category that includes manufacturing, wholesaling, warehousing, utilities, heavy transportation, sanitary landfills, sewage treatment facilities, wind farms, feedlots, grain storage bins, irrigation facilities, reclamation projects, electrical substations, intermodal shipping facilities, and similar uses. In addition, “raw” or undeveloped properties might also be identified for their potential industrial use through a highest and best use analysis.

Intermontane: Among or between mountains.

Intrusions: A body of molten rock that penetrates older rock.

Krumholtz: A vegetation type occurring at alpine timberlines that is composed of tree species but in this environment are strongly dwarfed and misshapen.

Lacustrine: Pertaining to, formed in a lake or lakes.

Land Banking: The purpose of Land Banking as provided for under 77-2-361 and 77-2-362, MCA is to sell various parcels of state lands and use the proceeds from the sales to purchase other land, easements, or improvements for the benefit of the beneficiaries of the respective trusts.

Land Development: Adding improvements and/or entitlements to land in anticipation of a change in its use..

Land Exchange: The exchange of trust lands owned by other public or private entities for non-trust lands that better serve the interest of the trust.

Land Sale: The act of selling; the transfer of property, or a contract to transfer the ownership of property, from one person to another for a valuable consideration, or for a price in money.

Late-successional species: A plant species associated primarily with a later stage in the successional development of a biotic community.

Lease: An agreement by which an owner of real property (lessor) gives the right of possession to another (lessee), for a specified period of time (term) and for a specified consideration (rent).

Lease of Development Rights: The temporary conveyance of development rights on a parcel of property that result in the limitation of the types of development that can occur on the land for a set period of time.

License: A special permission to do something on, or with, somebody else's property which, were it not for the license, could be legally prevented or give rise to legal action in tort or trespass.

Limestone: A sedimentary rock composed primarily of calcium carbonate.

Market Filter: The process of selecting physically suitable land for development based on favorable demographic and economic characteristics. The function of the Market Filter is to determine the demand for specific tracts within a certain geographic, demographic or socio-economic context.

MEPA: The Montana Environmental Protection Act (MEPA), which requires the evaluation of potential impacts that occur as the result of an action undertaken or licensed by the State of Montana

Mesic temperature regime: Mean annual soil temperature between 46.5 and 59.0 °F and the difference between summer and winter temperatures is greater than 41 °F.

Metamorphic rock: Rocks which have formed in the solid state in response to pronounced changes in temperature, chemical and pressure environment.

Metalliferous: containing or yielding metal

Metasedimentary rock: Partially metamorphosed sedimentary rocks.

Montana Antiquities Act: The act addressing the responsibilities of the State Historic Preservation Office and other state agencies regarding historic and prehistoric sites including buildings, structures, paleontological sites, archaeological sites on state owned lands.

Montana Environmental Policy Act (MEPA): Adopted during the 1971 session of the State legislature, MEPA is patterned after the NEPA. MEPA establishes Montana's environmental policy, processes and the EQC (MCA 75-1-101 - 324).

Moraine: A drift of glacial till deposited by a glacier, independent of underlying topography.

Mudstone: a rock formed from an indefinite mixture of clay, silt, claystone, siltstone, shale and argillite.

National Environmental Policy Act (NEPA): The basic national charter for environmental protection. NEPA became law in 1969 and establishes policy, sets goals, and provides means for carrying out the policy (40 CFR 1500.1).

Neighborhood Plan: A set of goals, policies and recommended action measures for a specific area within a larger planning jurisdiction that become part of the Growth Policy. It is more specific than the Growth Policy, but it reinforces and complies with growth plan policies. These goals and policies will provide overall guidance to the development of new regulations that will be binding on future development in the neighborhood.

Net Present Value (NPV): Today's dollar equivalent of accumulated future revenues, over the analysis period, less accumulated future costs.

Non-metalliferous: does not contain or yield metal

Non-point pollution source: Pollution without a single, identifiable source, such as that from road construction, cattle grazing, or agricultural practices. (see Point pollution source)

Noxious Weed: Plants that conflict with, interfere with, or otherwise restrict land management are commonly referred to as weeds. A plant that has been classified as a weed attains "noxious" status by an act of State legislation.

Other: Land not characterized as Mineral, Timber, and Agriculture and Grazing.

Outwash: A plain composed of water washed out from under a glacier or ice sheet.

Physical Environmental Filter: The process of selecting developable land with slopes less than 25% and located outside a designated 100-year flood plain.

Physical Suitability Filter: The process of selective developable lands based on the proximity and availability of infrastructure.

Physiography: The study of the genesis and evolution of landforms.

Plan: The real estate management plan to guide decisions affecting real estate actions on state trust lands. Plan is also synonymous to the Real Estate Programmatic Plan and to the selected alternative of the Programmatic EIS.

Plant Species Names

alkali bluegrass	<i>Poa juncifolia</i>
American ash	<i>Fraxinus pennsylvannia</i>
American vetch	<i>Vicia americana</i>
arrowleaf balsamroot	<i>Balsamorhiza saggitata</i>
bearded wheatgrass	<i>Agropyron caninum</i>
beardtounge	<i>Penstemon spp.</i>
beargrass	<i>Xerophyllum tenax</i>
big bluestem	<i>Andropogon gerardii</i>
big sagebrush	<i>Artemisia tridentata</i>
birdfoot sagebrush	<i>Artemisia pedatifida</i>
black cottonwood	<i>Populus balsamifera ssp. trichocarpa</i>
black greasewood	<i>Atriplex gardneri</i>
black sagebrush	<i>Artemisia arbuscula</i>
blue gramma	<i>Bouteloua gracilis</i>
bluebunch wheatgrass	<i>Pseudorogneria spicata</i>
bluejoint reedgrass	<i>Calamogrostis canadensis</i>
bog birch	<i>Betula glandulosa</i>
boxelder	<i>Acer negundo</i>
broom snakeweed	<i>Gutierrezia sarothrae</i>
bud sagebrush	<i>Artemisia spinescens</i>
Canada buffaloberry	<i>Sheperdia canadensis</i>
Cascade mountain ash	<i>Sorbus scopulina</i>
cheatgrass	<i>Bromus tectorum</i>
chokecherry	<i>Prunus virginiana</i>
common snowberry	<i>Symphoricarpos albus</i>
common yarrow	<i>Achillea millefolium</i>
creeping juniper	<i>Juniperus horizontalis</i>
curl-leaf mountain mahogany	<i>Cercocarpus ledifolius</i>
devil's club	<i>Oplopanax horridum</i>
dotted gayfeather	<i>Liatris punctata</i>

Douglas-fir	<i>Pseudotsuga menziesii</i>
dryland bluegrass	<i>Poa arida</i>
dwarf billberry	<i>Vaccinium caespitosum</i>
elk sedge	<i>Carex geyeri</i>
Engelmann spruce	<i>Picea engelmannii</i>
false indigo	<i>Amorpha canescens</i>
foamflower	<i>Tiarella unifoliata</i>
fool's huckleberry	<i>Menziesia ferruginea</i>
fringed sage	<i>Artemisia frigida</i>
golden current	<i>Ribes odoratum</i>
grand fir	<i>Abies grandis</i>
Great Basin wildrye	<i>Elymus cinereus</i>
Great Plains cottonwood	<i>Populus deltoides</i>
green needlegrass	<i>Stipa viridula</i>
green rabbitbrush	<i>Chrysothamnus viscidiflorus</i>
ground dogwood	<i>Cornus unalaskense</i>
grouse whortleberry	<i>Vaccinium scopulorum</i>
hawthorne	<i>Crataegus spp.</i>
heart-leaved arnica	<i>Arnica cordifolia</i>
Hood's phlox	<i>Phlox hoodii</i>
Hooker's fairybell	<i>Disporum hookerii</i>
Hooker's sandwort	<i>Arenaria hookerii</i>
Idaho fescue	<i>Festuca idahoensis</i>
Indian ricegrass	<i>Oryzopsis hymenoides</i>
Japanese brome	<i>Bromus japonicus</i>
Kentucky bluegrass	<i>Poa pratensis</i>
kinnikinnik	<i>Arctostaphylos uva-ursi</i>
limber pine	<i>Pinus flexilis</i>
little bluestem	<i>Schizachrium scoparium</i>
lodgepole pine	<i>Pinus contorta</i>
lungwort	<i>Mertensia spp.</i>
lupine	<i>Lupinus spp.</i>
Lyall's larch	<i>Larix lyallii</i>
many-flowered phlox	<i>Phlox multiflora</i>

mock orange	<i>Philadelphus lewsii</i>
moss campion	<i>Silene acaulis</i>
mountain avens	<i>Dryas octopetala</i>
mountain balm	<i>Ceanothus velutinus</i>
mountain hemlock	<i>Tsuga mertensiana</i>
mountain lover	<i>Pachistima myrsinites</i>
narrow-flowered brome	<i>Bromus vulgaris</i>
narrow-leaved sedge	<i>Carex filifolia</i>
needle and thread grass	<i>Stipa comata</i>
Pacific yew	<i>Taxus brevifolia</i>
paper birch	<i>Betula papyrifera</i>
patata	<i>Monolepis nuttalliana</i>
pathfinder	<i>Adenocaulon bicolor</i>
pinegrass	<i>Calamogrosits rubsens</i>
plains cottonwood	<i>Populus deltoides</i>
plum	<i>Prunus spp</i>
ponderosa pine	<i>Pinus ponderosa</i>
porcupine grass	<i>Stipa spartea</i>
prairie coneflower	<i>Ratibida columnifera</i>
prairie junegrass	<i>Koeleria pyramidata</i>
prairie sandgrass	<i>Calamovilfa longifolia</i>
prickly pear cactus	<i>Opuntia polyantha</i>
purple meadowrue	<i>Thalictrum dasycarpum</i>
pussy toes	<i>Antennaria spp.</i>
queens cup	<i>Clintonia unifoliata</i>
rattleglass	<i>Bromus brizaeformis</i>
red threeawn	<i>Aristida purpurea</i>
redstem ceanothus	<i>Ceanothus sanguineus</i>
redtop bentgrass	<i>Arostis stolonifera</i>
Rocky Mountain helianthella	<i>Helianthella uniflora</i>
Rocky Mountain juniper	<i>Juniperus scopulorum</i>
Rocky Mountain maple	<i>Acer glabrum</i>
Ross's sedge	<i>Carex Rossii</i>
rosy pussytoes	<i>Antennaria microphylla</i>
rough fescue	<i>Festuca scabrella</i>

rubber rabbitbrush	<i>Chrysothamnus nauseosus</i>
Russian olive	<i>Elaeagnus angustifolium</i>
saltsage	<i>Atriplex nuttalli</i>
sand dropseed	<i>Sporobolus cryptandrus</i>
Sandberg's bluegrass	<i>Poa sandbergii</i>
scarlet globemallow	<i>Sphaeralcea coccinea</i>
Scouler's willow	<i>Salix scouleriana</i>
scurf pea	<i>Psoralea tenuifolia</i>
sedge	<i>Carex</i> spp.
serviceberry	<i>Amalanchier alnifolia</i>
sheepfat	<i>Atriplex confertifolia</i>
shiny-leaved spiraea	<i>Spiraea betulifolia</i>
shreddy ninebark	<i>Physocarpus malvaceus</i>
shrubby cinquefoil	<i>Potentilla fruticosa</i> (= <i>Pentafloroides floribunda</i>)
silver sagebrush	<i>Artemisia cana</i>
sticky geranium	<i>Geranium viscosissimum</i>
Subalpine fir	<i>Abies lasiocarpa</i>
sweet-scented bedstraw	<i>Galium triflorum</i>
textile onion	<i>Allium textile</i>
thickspike wheatgrass	<i>Agropyron dasystachum</i>
thimbleberry	<i>Rubus parviflorus</i>
thin-leaved blueberry	<i>Vaccinium membranaceum</i>
three-leaved sage	<i>Artemisia tripartita</i>
tufted hairgrass	<i>Deschampsia caespitosa</i>
twinflor	<i>Linnaea borealis</i>
Utah juniper	<i>Juniperus osteosperma</i>
water birch	<i>Betula occidentalis</i>
Western hemlock	<i>Tsuga heterophylla</i>
Western larch	<i>Larix occidentalis</i>
Western redcedar	<i>Thuja plicata</i>
Western wheatgrass	<i>Agropyron smithii</i>
Western white pine	<i>Pinus monticola</i>
white spruce	<i>Picea engelmannii</i> x <i>glauca</i>
whitebark pine	<i>Pinus albicaulis</i>

wild sarsaparilla	<i>Aralia nudicaulis</i>
willow	<i>Salix spp.</i>
wingscale	<i>Atriplex canescens</i>
winterfat	<i>Eurotia lanata</i>
wolfberry	<i>Symphoricarpos occidentalis</i>
Wood's rose	<i>Rosa woodsii</i>
yucca	<i>Yucca glauca</i>

Polygon: A coverage feature class used to represent [areas](#). A polygon is defined by the arcs that make up its boundary and a [point](#) inside its boundary for identification. Polygons have attributes ([PAT](#)) that describe the geographic feature they represent.

Potholes: A hole generally deeper than wide.

Point Pollution Source: Pollution with a single, identifiable source, such as a sewage pipe or factory waste system. (see Non-point pollution source).

Prevention of Significant Deterioration of Air Quality (PSD)- with the Clean Air Act amendments of 1977, Congress mandated that states and Indian tribes would establish preconstruction permitting programs designed to ensure that the National Ambient Air Quality Standards are maintained as economic development occurs. Standards for measurement of PSD values typically follow a standardized three-part classification system.

Project Filter: The process of obtaining project approval through local government review.

Purchase/Sale of Development Rights: The permanent conveyance of development rights on a parcel of property that result in a covenant on the land limiting the types of development that can occur.

Quantile: Quantiles are essentially points taken at regular vertical intervals from the cumulative distribution function, dividing ordered data into groups of essentially equal-sized data subsets. In the context of this report quartiles(4 equal size groups) were used, and the results were combined as follows: 1 = <25%, 2 = 25%-75%, 3 = >75%

Quartzite: A granular metamorphic rock composed primarily of quartz.

Raster: A cellular data structure composed of rows and columns for storing images. Groups of cells with the same value represent features.

Rate of Return on Equity: the percentage of income received from an investment

Regulatory Filter: The process of determining the “how” land use regulations and environmental laws would affect land use.

Residential: A proposed land use category that includes single-family dwellings, duplexes, condominiums, townhouses, cabins, apartments, associated ancillary uses, and other residential uses normally recognized by local zoning regulations. In addition, “raw” or undeveloped properties might also be identified for residential potential. Analyses in this PEIS included multi-family units in the commercial category, in some cases.

Resource Management Standard (RMS): A specific level of performance that characterizes how various issues and resources will be addressed. In this document, each alternative has its own set of RMSs consistent with its management philosophy.

Rhyolite: A granitic rock with crystals too small to be seen by the unaided eye.

Riparian area: Green zones associated with lakes, reservoirs, estuaries, potholes, springs, bogs, fens, wet meadows, and ephemeral, intermittent or perennial streams. The riparian / wetland zone occurs between the upland or terrestrial zone and the aquatic or deep-water zone.

Rural: Concerning the country, lands not considered to be urban or suburban.

Saline, salinity: A measure of soluble salt accumulation.

Sandstone: Cemented sediment composed primarily from quartz.

Schist: A medium or coarse-grained metamorphic rock where mica minerals form parallel bands.

Scoping: An integral part of the environmental analysis. Scoping requires examining a proposed action and its possible effects; establishing the depth of the environmental analysis needed; determining analysis procedures, data needed and task assignments.

Selection Filter: The process of prioritizing project opportunities based upon fiscal and staffing considerations in addition to perceived market demand for the proposed project.

Sensitive species: A U.S. Forest Service designation for plant or animal species that are vulnerable to declines in population or habitat capability which could be accelerated by land management activities.

Seral: A community susceptible to replacement by another community.

Serotinous: Conifer cones that do not open after the seeds are matured unless heated by fire.

Shale: A sedimentary rock formed from fine textured layered soils.

Siltite: A metamorphosed siltstone.

Special Uses: Commercial, residential, industrial, and conservation use of state lands.

Species of Special Concern: A Montana Natural Heritage Program designation for species which may be very rare or locally abundant but occupying a very restricted range. In either case, they are especially vulnerable to extinction.

Subdivision: A division of a single parcel of land into smaller parcels (lots) by filing a map describing the division, and obtaining approval by a governmental commission (city or county).

Substrata: An underlayer.

Suburban: The area around a city, a transition area between urban and rural, usually residential with small businesses, although modernly an attraction for large industrial and commercial complexes.

Sustained Yield: Management of timber resources to provide sustainable, consistent yields of timber and/or other resources.

Thiessen Polygons: Polygons whose boundaries define the area that is closest to each point relative to all other points. Thiessen polygons are generated from a set of points. They are mathematically defined by the perpendicular bisectors of the lines between all points. A tin structure is used to create Thiessen polygons.

Threatened Species: Species which are likely to become “endangered species” within the foreseeable future through all or a significant portion of their range are designated threatened species in the Federal Register by appropriate Department Secretaries. (Schwarz et al. 1976)

Thrust and block faulted: A reverse fault characterized by a low angle of inclination.

Transfer of Developmental Rights: Land rights associated with a certain parcel, such as land use density, could be transferred to another parcel to accomplish a variety of objectives.

Transitional Filter: The process of selecting lands that have some development potential for residential, commercial, and industrial uses based on proximity to existing land uses.

Trust Mandate: The requirement that State trust lands be managed to provide income for the beneficiaries of the income derived from those lands, including public schools and universities,

Urban: Pertaining to a city or town, a named location where a mix of different developed uses occurs in close proximity to each other.

Ustic soil moisture regime: A condition where moisture is limited but present when conditions are suitable for plant growth.

Watershed: The area drained by a river or river system.

Wetlands: Areas that are permanently wet, or intermittently water covered, such as swamps, marshes, bogs, muskegs, potholes, swales, glades, and overflow land of river valleys. Large,

open lakes are commonly excluded, but many kinds of ponds, pools, sloughs, holes, and bayous may be included. (Veatch and Humphrys 1966 In: Schwarz et al. 1796)

Xeric temperature regime: Climatic conditions typical of Mediterranean areas where winters are moist and summers are warm and dry.

Zoning: A regulatory tool that enables local government to locate compatible and/or complimentary land uses within specific geographic areas while addressing a number of design, safety and infrastructure issues. It also can be used to achieve other community goals such as the provision of affordable housing, the preservation of significant cultural and historic resources and the efficient provision of community services and infrastructure.

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Appendix A-1

Public Comments and TLMD Staff Comments Following Issuance of Initial Scoping Document and prior to Release of DPEIS

The following is a listing of comments received by letter, e-mail, phone or fax after release of the Initial Proposal. Where a comment cited a specific section of the Initial Proposal, it was listed in the outline below. Comments not assigned to the Initial Proposal outline were grouped by general theme and issue categories. The order of the topics / issues does not imply importance.

COMMENT
1 Purpose of and Need for the Proposed Plan
1.1 Purpose <ul style="list-style-type: none"> The purpose of the programmatic plan on page 2 should be to establish a framework by which the agency will identify and classify lands for special use management. (SC-68.3)
1.2 Need <ul style="list-style-type: none"> Page 2, 1.2: I feel the statements are absolutely false. Resource management is still the best use of most school trust lands. Only a relatively small proportion of trust land is suitable for high return special uses. (SC-23.10) Page 2, 1.2: Is it accurate to consider minerals as managed for sustained yield in the same context as crops and timber? (SC-75.3)
1.3.1 Mission Statement <ul style="list-style-type: none"> The Mission Statement should be revised to include DNRC's clear commitment to protection of environmental health and community wellbeing. (SC-47.2) The mission statement of the Special Use Management Program should include consideration of community concerns. (SC-68.4) I agree with the Mission Statement in general as long as environmental factors take priority. (SC-77.7) We believe that the presumption in this plan that DNRC needs "to generate increased and diversified revenues from alternative management strategies" is a departure from the Trust land Management Division's existing mission statement which states, "Manage the State of Montana's trust land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income generating capacity of the land." This change gives short-term gains priority over protecting the long-term trust assets. The premise of the school trust is a land-based ethic whereas the premise of the Plan is a transition from this land ethic to a strictly monetary return. (SC-69.1)
1.3.2 Objectives of the Programmatic Plan <ul style="list-style-type: none"> Page 3, 1.3.2 I don't fully agree with the objectives. First objective should be to secure "the greatest measure of legitimate and reasonable advantage to the trust beneficiaries. (SC-23.11) Fifth objective should delete "for special uses". The objective is to protect the long-term income generating capacity of the land for all uses. (SC-23.12) Page 3: The document states the plan will provide benefits to "DNRC, the trust beneficiaries, and the public". FWP supports this broad interpretation, and encourages DNRC to develop the plan and alternatives based on this concept. (SC-75.4) Page 4, Objectives: "Protect the long-term viability of trust land for special uses". FWP thinks this objective is misstated in only referring to special uses. Long-term viability for all uses should be considered. (SC-75.5) The phrase "generate increased revenue" in the first objective is unclear, in that it

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could mean an increase "overall" (from the management of all special-uses as a collective whole) or "on each and every parcel". There is considerable difference in the two. Which is meant? If it is the former and not the latter, something should be said to that effect, to prevent anyone's shifting of the meaning from the whole to each of its parts. (SC-70.2)

- As regards the management which is to achieve such increase, are there any limiting parameters within which it must operate? Beyond the State Constitution and various laws, there is Objective 5 ("protect the long-term viability of trust land for special uses") that presumably provides a constraint. But what does the phrase mean? Any special use like (say) development of a commercial center is going to eliminate the land's potential for a good many other special uses, and do so for a long time; but I don't suppose such a use would be precluded under this objective even though it impairs the long-term viability of that land for many special uses. But apart from the State's divesting itself of ownership of the land or allowing something like industrial pollution with hazardous material, I can't think of what is intended in the objective as it is presently phrased. (SC-70.3)
- The only other objective which I see as providing some limiting context for management intent on generating increased revenue is the second one, referring to MEPA and the Montana Antiquities Act "in their most current form". But what does that mean for MEPA, given the recent legislative action to revise that act? I ask that not simply out of ignorance about what exactly the legislative action was, but also because I note in the Mission Statement a phrasing which I suppose is linked with the reference in the objectives to MEPA, namely, "while considering environmental factors". Now I know from long experience in public planning and plan-implementation efforts that in that context the term "consider" is subject to quite varied interpretation. It can mean no more than list explicitly the environmental factors involved, take note that these are present, and then dismiss them, give them no or little weight in the decision. On the other hand, it can mean to note and give significant weight to environmental factors. Does the revision of MEPA, and the use of the weasel-word "consider", mean that the agency's management actions will not take seriously the environmental impacts of its actions? (SC-70.4)
- Objectives 3, 4, 6, and 7 are process-oriented, both internally to the agency and in its relation to other agencies (local governments) and to the public. I applaud the direction of all four, but would raise a question concerning the nature of the commitment which the last two represent. In 1.6.2 you call attention to the commitment to follow the law, but in the course of doing so point to places in state law that exempt the agency from certain regulations and requirements that private entities must follow in the development of land. I have no quarrel in principle with such exemption, since I think that public agencies are meant to serve common purposes important to all citizens of Montana and that achievement of such purposes occasionally needs the superior weight provided by those exemptions. But there is to my mind another side to that status of serving a common purpose: the reason which makes those purposes weightier (that they relate directly to our common good) also requires that the public agency pursue those purposes in a spirit which is in keeping with the higher character of the purpose being served. Put generally, that means: as a public (State) agency serving a public purpose, DNRC should function and act differently from private individuals and entities, and should hold itself (and be held) to an appropriately higher standard given its nature as a public entity. The "differently" in question means (among other things) "wholeheartedly mindful of State

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government's function to support the citizens of the state" both as a whole and collectively and (so far as possible) distributively as well. Unfortunately there is an arrogance of 'higher authority' ('we don't have to follow your rules and regulations, but will do what we want regardless') that having the legal right to exemption can induce. Especially where this public agency is undertaking actions which are normally those of private entities and which for the latter are subject to certain regulations and processes that are meant to assure that private actions are consistent with or contribute to the public good, it should not stop with a merely formal commitment of itself to what objectives 6 and 7 outline. Rather as a public agency it should make a good-faith effort to achieve its own public purpose within the local context by involving the public and following the relevant local rules and regulations. That may occasionally fail to elicit support for the project as it is being proposed (initially and even after some adaptation), and the exemptions need to be invoked as a last resort. But only if the commitment to begin with was sincere and more than nominal, only if the effort to involve the public and to accommodate the local citizenry, their local government, and their locally-defined common good, was good-faith and pro-active, has the State agency acted in keeping with its nature as public and has it the moral-- and not simply legal-- right to proceed on its proposed course. (SC-70.5)

1.4 Scope of this Initial Proposal

1.4.1 The Planning and Scoping Process

- I have three concerns: (1) the limited public participation in the scoping process (2) the lack of a mapped inventory of State trust lands, to enable DNRC staff and the public to understand how the lands are currently being used; and (3) the apparent segregation of other Trust Land Division bureaus from the planning process. My suggestions are:
 - Establish a citizens advisory committee of lessee, local government, school, business, and environmental representatives to advise DNRC staff in the development of the plan.
 - Inventory all State trust lands and map the information, as the very next step in your planning process.
 - Add a colleague from each of the other bureaus to your project planning team, or at least plug them into periodic reviews of the plan as it develops. (SC-47.1)
- The plan should focus on State trust lands within urban and urbanizing communities. These are the areas most likely to have the infrastructure needed to support more intensive development. More rural areas should be low priority. (SC-47.3)
- The plan should contain a reference guide summarizing all local and state laws and regulations that might pertain to special uses. (SC-47.9)
- Fundamentally, we want to point out that since the actions proposed by the State have implications for the health and welfare of the people of Montana, the State should ensure that all alternatives considered in the EIS are consistent with the state constitution that recognizes the right of all Montanans to a clean and healthful environment. (SC-68.1)
- To develop a plan for managing various lands, it would seem to me necessary to inventory what you have. Such an inventory would include at least a description of the location, nature, and current function(s), of the land areas involved, and in each case a characterization of the land's relation to surrounding lands and land-uses, of the way in which it is currently integrated into a context and is currently functioning in relation to its context. In particular, I think of ecological features of the land, which

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would be broader than any single parcel or set of parcels (does the land have a role in a larger natural area?), and of the socio-economic nature of surrounding land-uses (are those uses dominantly agricultural, or residential, or...?). Unless the plan is simply a reaction-guiding document, and not pro-active as a management plan can and should be, a good inventory would seem essential at the start. But I see no sign of it in the present proposal. (SC-77.1)

- In the scoping document it is unclear which lands that DNRC manages will be included and/or affected by this plan. Criteria needs to be developed that establishes which lands are going to be selected for inclusion in the Plan, not managed under this Plan, or deferred from this Plan. In other words, which lands fall under plan's jurisdiction and which don't. How many parcels of State lands are nearby or adjacent to urban areas? How many acres are likely to be considered for development within a specified time frame? How many acres of DNRC lands are considered critical wildlife habitat? How many acres have potentially conflicting land uses that are likely to occur within a specified time frame? Maps (including legal descriptions) identifying these lands need to be displayed in the EIS, as well as maps that identify any overlap or potential conflict between the State Forest Land Management Plan and this plan. (SC-69.5)
- Page 4, 1.4.1: The third paragraph references "mitigation measures found in state and federal law". Usually mitigation measures are developed by ID team members, decision-makers, and project leaders to address specific concerns. Suggest deleting "found in state and federal law". (SC-23.13)

1.4.2 Initial Public Scoping

- Why do you always leave Butte out of the scoping meetings? We have more state land in southwest Montana than in other areas. Are you afraid of us? (SC-5)
- Why no meeting in Great Falls? (SC-29.1)
- The 5.2 million acres belongs to the people of Montana, as stated in the Montana Constitution. Land sales or exchanges need close scrutiny by the public (SC-22.4)
- The EIS is very important in Billings because of the checkerboard pattern of state sections in high growth areas. There has been very little public discussion of this issue here, and I don't believe the import is fully understood. Is there any possibility of getting the response deadline postponed? (SC-60.1)
- I am concerned that organizations, local government and individuals in the eastern part of the state may have been unaware of the scoping and initial document preparation of this EIS. Many local municipal and county governments are in the process of updating their land use plans and may have concerns about how state lands might conform with those plans (SC-66.1, SC-83.1)
- Since the Legislature and the current Governor has signed into law new legislation pertaining to MEPA, it is reasonable for citizens to request a time extension of the April 27, 2001, deadline. (SC-72.2)
- Since the Legislature and Governor have signed into law new legislation pertaining to MEPA, it is reasonable to request a time extension. (SC-72.30)
- I HEREBY REQUEST THAT SCOPING BE EXTENDED so that I and others may have the opportunity to more fully comment for the following reasons:
 - The last legislature made major revisions to MEPA. You have indicated in your draft that you will follow the new MEPA law. The Public needs guidance from you on how these changes will effect this project.
 - The Public has not been informed adequately of this project to provide meaningful scoping comments. (SC-77.1)

COMMENT

1.4.3 Issues Identified in the Development of the Initial Proposal

- In §1.4.3, the State should include water quality as an issue that needs to be specifically addressed. (SC-68.5)
- The notion of "appropriate" locations for various special uses is a very complex one, and of such nature that Issues 3, 5, 7, and 8, are really part of this issue, since they relate to the impacts of development and the local government processes for managing development of private land within that government's jurisdiction. I would suggest that the siting of this or that special use in a place involves at least two different types of appropriateness or (as it is called in 2.3.4) "suitability".
 - a. The suitability of the land physically for (support of) the use in question: for example, appropriate topography and soils for building, or suitable landscape for wildlife habitat, or land appropriate for development that features its historical role or an archaeological site and the like.
 - b. The appropriateness of the location of that use on the land in question, given the impacts on and beyond the land by the location of that use there: for example, the appropriateness of locating an industrial development on an urban site that is surrounded mainly by residential housing.
 - These forms of appropriateness are not only not the same but may be in conflict: land suitable physically for residential development may well be inappropriate for such development when its context and its impact on elements of that context are considered. (SC-70.7)
- Page 5, 1.4.3: I suggest adding an issue as follows: "Determining the best combination of potential uses that will fulfill trust obligations and minimize unnecessary adverse impacts to the human environment". (SC-23.14)

1.4.4 Issues Eliminated from Detailed Study

- This plan will have limited value, at great expense, as long as it will not address all management activities occurring on trust lands. Integrated management is most efficient. (SC-17)
- It is distressing to see that the really important issues (ag & grazing, mineral, timber management) will remain "as is" and not be subjected to this review (SC-27)
- The plan should address the impact of a more aggressive special uses program on the agricultural, mining, and timber industries of Montana. Individual suitability assessments should also weigh the pros and cons of, for example, depleting the amount of land area available to local ranchers for grazing. (SC-47.8)
- DNRC is under a multiple-use management concept since 1969. This means that wildlife habitat and public access for recreation should be on equal footing with other uses (SC-22.1)
- Please include a section on managing recreation use licenses in this plan. The state is not maximizing income from this program. Where income from recreation exceeds other uses, recreation needs to become the dominant use in management considerations. (SC-10)
- I do not agree with separating general recreational use from the plan. I believe ignoring general recreational use (outside scope) while capitalizing on special recreational use doesn't work. (SC-23.7)
- While recreation permits are not covered by this plan, they should be, because changing land uses will change the availability of recreational opportunities (SC-26.3)
- Page 15, 2.3.4: Throughout the document there appears to be minimal consideration of the importance of maintaining public access. This appears contrary

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to the priority the land board has placed on access to state lands or other public lands in their exchange policy. A section should be added to list critical public access or recreational values. Often public access is desirable on the same property that has unique real estate amenities. At a minimum, the plan should consider public access easements in lieu of real estate amenities. (SC-75.13)

- Page 5, 1.4.3: The document fails to recognize public access and recreational use as major issues that need to be addressed while providing income for the trust beneficiaries. (SC-75.6)
- I do not agree with separating some ROW's from the Plan. Just because there are procedures for ROW doesn't mean we can't manage them. How about tracking down trespass use? Developing/planning corridors for use? Maybe we should secure access to all state land as part of special uses. Maybe we should identify needs for change to existing policies/procedures. (SC-23.6)
- Why are rights-of-way easements not included in this programmatic EIS? (SC-68.57)
- Page 6, 1.4.4: Managers can't ignore non-special uses of state land. There may be a need for the plan to acknowledge things such as public access through a cabin site development. (SC-23.15)

1.5 The Decision to be Made

- The ROD must be issued by the Land Board not the Director of the DNRC. The Land Board cannot delegate this responsibility to the DNRC. The MT Constitution requires that the Land Board "classify land" Art X Section (4) MT Constitution. (SC-77.10)
- This Programmatic EIS is of long-term significant interest to the State and the public. The agency is the appropriate body to develop the EIS. It will guide future activities on State lands for generations to come. Therefore, given the magnitude of the decision, it is only appropriate that the fiduciaries of the trust make the final decision on which alternative is most appropriate. (SC-68.2)
- Page 6, 1.5: MEPA rules outline items a decision-maker must address. Determine if the alternatives meet objectives, if issues are adequately addressed, the need for further analysis, and selection of alternatives, significance of impacts. (SC-23.16)

1.6.1 Legal Framework

- Perhaps the most important component of this EIS is what happens once it is complete. MEIC strongly believes the most consistent, judicious and accurate way to implement this EIS is through rulemaking. Therefore, we believe the State should agree that it will implement its final decisions in rules under the Montana Administrative Procedures Act. (SC-68.62)
- The reclassification process implies that in the initial process for Development of the Special Uses Management Plan can become a constitutional issue. If each parcel of land, or portfolio, is reclassified for "fair market value" based upon the current conditions of the market especially if the economic return on the land is in conflict with the desires of the public. The perception that economic values have a priority over other values seems to conflict with the Montana Constitution which states explicitly that citizens have "the right to a clean and healthful environment"(section 3. Inalienable rights). And the Enabling Statue, section 11, clearly states that revenues generated from lands granted are for the "maintenance of schools and institutions." The latter statue does not discuss the idea of "greatest Monetary return," or "fair market value" in the assessments of fees for leases. (SC-72.7)
- Another point is that economic values without an adequate MEPA process can also

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in certain cases be in violation of Federal Law. This is especially important because state property comes also under Federal guidelines and if it can be proven that the "greatest monetary return" is harmful to the environment than there will be federal consequences as well. For instance, the previous MEPA laws were stricter than the NEPA policies. The Montana Legislature has greatly weakened the public process, and it has weakened the environmental management of environmental standards. The issue of reclassification of public lands for "the greatest monetary return" might therefore be in conflict with Federal law, and again the burden will fall on the taxpayers. (SC-72.8)

- DNRC relies on 77-1-601, MCA as authority (DNRC even claims it is a mandate) to manage trust lands to maximize revenues for the several school trusts. But DNRC apparently does not recognize the limitations imposed by the last clause of the section and that in so doing the economy of the local community as well as the state is benefited as a result of the impact of such development " (emphasis added). This language clearly requires development of trust lands to ensure benefit to the local economy as well as that of the state. Before DNRC can proceed with urbanizing development of trust lands, it must ensure that a proposed development will not adversely affect a local government's tax base/revenues or the local private business sector - income, employment, and sales. (SC-81.2)
- Also, 77-1-605, MCA, in outlining types of developments on trust lands, does not specifically mention residential, commercial or industrial uses among those "contemplated." I suppose the term "may include" does not exclude urban uses, but the language, read together with 77-1-601, is certainly no mandate to urbanize trust lands located near cities and towns. In addition, the phrasing "... will develop or conserve the various state land resources..." tempers any perceived mandate that DNRC must maximize trust revenues at all cost. (SC-81.3)
- Interestingly, to my knowledge, all of DNRC's past or proposed urban developments comprise commercial, industrial or recreational uses. For some reason, DNRC has not proposed residential development. Is DNRC avoiding residential development because the department believes that it can be exempt from local subdivision review under 76-3-205 (2), MCA, an exemption for state lands under the Montana Subdivision and Platting Act? If that is DNRC's position, the department is misusing, if not abusing, the exemption to the state subdivision law. In 1975 the state lands agency wanted an exemption from subdivision review where an agricultural lessee had built a residence on state lands and the agency wanted a simple process to convey that portion of a trust tract to the lessee. Because that situation seldom occurs, the exemption, used as intended, seemed innocuous. No one ever conceived of commercial or industrial uses on state trust lands in 1975, and as a result, 76-3-205 (2), MCA, used the phrase "for residential purposes." The provision intended to limit the use of the exemption to creation of one parcel of trust land. For DNRC to develop massive high-density urban commercial subdivisions under this exemption is absolutely improper. (SC-81.7)
- Does the language in 77-1-601 and 77-1-605, MCA, provide legal authority for DNRC to develop urban uses on state trust lands? Does the statute mandate that DNRC proceed with urbanizing trust lands? (SC-81.10)
- State lands must be managed to meet the MT constitutional right to a clean and healthful environment: "ARTICLE 11. Section 3, and the obligation of the state and, each person (sic to) maintain and improve a clean and healthful environment in Montana for present and future generations." ARTICLE IX. Section 1. (SC-77.4)

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- From the clear meaning of this language (Enabling Statute, Sections 10 and 11), the following is true:
 - Granted land was never placed in trust for the schools rather it was given to the state.
 - Proceeds from granted land dispositions (defined as proceeds what would be done to private land through eminent domain, namely sale or easement) had different requirements than proceeds from leases. Both required that moneys derived be placed in a fund for the support and maintenance of schools. But only moneys derived from dispositions not from leases were required to be at fair market value.
 - There is no trust expressly created by the language of the grant. If there is a trust impliedly established for the schools it is from the funds acquired not in the land itself.
 - The land granted except for the restrictions placed on it is subject to the discretion of the state.
 - There is no requirement that lands be disposed of or leased but only that if they are that the state receives the fair market value for dispositions and whatever income is generated by lease and that that money received be set aside for the purposes required of those moneys in the grant.
 - The words revenues or obligation to produce fair market revenues do not appear in the enabling language in reference to granted lands.
 - Not requiring disposition or lease of land was intentional, thus leaving the states to decide whether lands would be disposed of, leased, or retained. And allowing the State to determine the factors necessary in making these determinations. (SC-77.5)
- From the clear meaning of this language (Montana Constitution, Article X. Section 11), the following is true:
 - Granted land is public lands of the state.
 - Granted land is held in trust for the people.
 - If granted land is disposed of it is to be at fair market value and the moneys thereby derived are to be used for the purposes specified in the grant.
 - Disposal includes not only the meaning of disposal under the enabling legislation but also by lease (i.e. "such land or an interest or an estate therein").
 - There is no requirement that lands be disposed of but only that if they are that the state receives the fair market value therefore and that that money be set aside for the purposes required of those moneys in the grant.
 - The words revenues or obligation to produce fair market revenues do not appear in the MT Constitution in reference to granted lands. (SC-77.6)
- The Montana Constitution, Article II, Section 3, and Article IX, Section 1 cite the right to "a clean and healthful environment". In my opinion these come first. Although Attorney General Woodahl came to an opposite conclusion in his opinion (Volume No. 36, Opinion No. 92 July 7, 1976): "While the Enabling Act does not say in so many words that the state is under a duty to sell or lease school trust lands, it is elementary that this trust be administered so as to secure the largest measure of legitimate advantage to the beneficiary." at 512. Times have changed since the grants to the State of MT. Mr. Woodahl's opinion in relying on decision rendered prior to the 1972 Constitution did not have the opportunity to consider the changing attitudes of the people in Montana as expressed by the 72 Constitution. (SC-77.15)
- The Montana statutes governing the management of school trust lands state: These

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<p>lands and funds are held in trust for the Support of education and for the attainment of other worthy objectives helpful to the well-being of the people of this state. The board shall administer this trust to secure the largest measure of legitimate and reasonable advantage to the state (MCA 77-1-202). Hence, the proposed plan must not emphasize economic income to the detriment of other "legitimate and reasonable advantage to the state". Such other "worthy objectives" Include the maintenance of ecological systems that purify air and water, sequester carbon; cycle nutrients; regulate carbon: and provide habitat that allow for the maintenance of biological diversity essential to the ecological integrity and productivity of ecosystems. (SC-62.1, SC-63.1)</p> <ul style="list-style-type: none"> • On page 7, it discusses how the income generated from school trust lands goes "directly" to schools. This should more accurately reflect the reality of the school funding mechanism. That money goes to the general fund and then is indirectly distributed to schools. (SC-68.6) • Page 7, 1.6.1: It would have been useful to include the Enabling Act as an appendix. This would allow the public a broader understanding of the trust mandate. (SC-75.8)
<p>1.6.2 Applicable Regulatory Requirements</p> <ul style="list-style-type: none"> • DNRC should comply with all local growth policies and local planning, zoning and subdivision requirements (SC-1, SC-31.3, SC-32.3, SC-34.2, SC-38.3, SC-39.2, SC-41.2, SC-42.2, SC-44.3, SC-46.2, SC-47.10, SC-54.2, SC-56.4, SC-57.6, SC-60.2, SC-64.3, SC-65.2, SC-77.8, SC-80.6, SC-81.9) • If the State finds itself unable or unwilling to comply with local policies and regulations it should seek a variance from the local government under the appropriate local regulations. (SC-68.39) • Please detail how local planning regulations will impact the depth of a MEPA analysis. What would be the outcome of a programmatic analysis if a local planning board has zoned an area of critical habitat for commercial or residential development? It seems that deference to local planning regulations could provide a large MEPA loophole. (SC-63.3) • Wouldn't it be in the best interest of Montana for the State Land Board to require any urban development of trust lands to (1) be approved by the local elected officials, (2) comply with local plans and growth policies, (3) be approved under adopted local land use regulations, and (4) be approved by the State Land Board? (SC-81.15) • In § 1.6.2 the State should more clearly state the law regarding zoning. This does not inform the reader that DNRC is exempt from zoning requirements. (SC-68.7)
<p>1.6.3 Relationships to Other Plans</p> <ul style="list-style-type: none"> • What if there are conflicts between the final EIS and the State Forest Plan? (SC-68.58) • Review all adopted local plans, specifically transportation plans and consider granting trail and open space easements prior to disposition. At a minimum, inform local governments and/or land trusts and allow them right of first refusal prior to disposition in exchange for long-term protection of open space. (SC-83.2) • The plan should include a policy whereby each special use permit would reflect the prevailing land use in the area, and not introduce a land use change of greater intensity. In other words, DNRC special uses management decisions should reinforce existing development patterns. The exception to this would be where a locally adopted plan targets an area for new types of land uses. (SC-47.4) • The State should require transportation plans for all parcels of property. In many

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<p>situations where the parcel is small, a transportation plan will be simple. However, in large scale development or development with high traffic flows this is critical for protecting public safety and air quality. (SC-68.29)</p>
<p>2.1 The Montana Environmental Policy Act (MEPA):</p> <ul style="list-style-type: none"> • Clarify the relationship between the EIS and pending legislation (SC-31.7, SC-32.7, SC-36.4, SC-38.6, SC-39.8, SC-40.6, SC-41.8, SC-46.6, SC-54.8, SC-56.6, SC-68.55, SC-69.2) • You did not mention the public review of the sale or exchange of school trust lands as required by MEPA. This is important because there have been several illegal exchanges which actually lost revenue to the school trust. (SC-12) • Where and when will MEPA be applied in the proposed lease process? (SC-2) • Cumulative impacts should be thoroughly addressed. Impacts to water quality and soil productivity and compaction should be addressed. Impacts to Populations of wildlife and their habitat should be thoroughly reviewed. Threatened, endangered, and sensitive species should be granted particular consideration. Impacts to aquatic species should be thoroughly analyzed. (SC-62.7) • What is the mechanism for addressing cumulative effects? We request that all alternatives ensure an adequate cumulative effects analysis that examines past, present and reasonably foreseeable activities. We also request that any cumulative effects analysis include an analysis of associated and anticipated activities by other land owners. (SC-68.53) • Cumulative impacts of special uses which might result in urban sprawl should be analyzed. (SC-67.9) • A CUMULATIVE EFFECTS ANALYSIS setting forth what would be the Cumulative environmental effects of the various alternatives proposed needs to be made. (SC-77.12) • How will cumulative impacts be analyzed? (SC-69.9) • Recent changes to MEPA means that MEPA is no longer sufficient to protect and enhance the human environment as required by the MT Constitution. Therefore, your agency no longer has an adequate and meaningful procedure to follow to guarantee our constitution right to a clean and healthful environment. Furthermore, legislatively mandated actions will guarantee degradation of the environment. (SC-77.2) • You need to provide a NEPA process to the questions you have raised since MEPA is no longer adequate to the purpose. (SC-77.3)
<p>2.2 Alternative A:</p> <ul style="list-style-type: none"> • No Action is not acceptable (SC-20, SC-72.1) • This would be my preferred plan at this time. (SC-21) • At this point in time, Flathead Audubon will support Alternative A. The other alternative to aggressively market special uses has us concerned. In time, DNRC could easily get a bad reputation for its "rollercoaster ride" (re: lease/license fees) that no one will consider a lease or license. Additionally, DNRC could inadvertently destroy the trust's principle (the long-term health of our state's natural resources) which will benefit no one. (SC-26.5, SC-56.8) • The No Action Alternative is not a correct statement of the current obligations of the DNRC in the management of granted lands. The language used in the descriptions show a development bias and do not mention mitigation for environmental concerns, for example, on page 7 of your "Initial Proposal" you state: under the direction of the Land Board DNRC's obligation for management and administration of trust lands is

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to obtain the greatest benefit for the school trusts. The greatest monetary return must be weighed against the long-term productivity of the land to ensure continued future returns to the trusts. (emphasis added)" Although future returns is a factor, another more important factor IS the effect of development on the human environment of the proposed action for current and future generations. This important concern is omitted. Further, this statement assumes that the lands themselves are in the school trust and must produce fair market revenue for the schools. I believe this view to be incorrect. (SC-77.13)

2.2.1 Existing Program Special Use Categories

- Pages 8 – 10, 2.2.1: The categories of use are not the same as in 2.3.5. I am not real comfortable with categorizing uses. The categories seem arbitrary. Where do homesites fit in? I'm not comfortable with differentiating primary and secondary uses as expressed in leases vs. land use licenses. This system is inherited baggage. Can't we be a little more creative and change this system in our plan? I disagree with the restricted easement definition for the plan. I believe it should include all easements, with the possible segregation of easements for condemnable purposes. (SC-23.17)
- What is fair market value? Page 9 of the draft states, "DNRC may retain open space, aesthetic, or recreational values on trust lands, provided that the trust receives the fair market value of the management rights forfeited by DNRC." This sounds like a policy statement that requires further elucidation. Is the State required to receive fair market value on every management decision it makes or can it forego maximum revenue to ensure long-term benefits to the trust? How will the State require fair market value for open space and wildlife habitat? What is open space? In any development there should be some open areas. Is this open space? Who will pay fair market value, the land board, the agency, the legislature, local government, individual citizens, someone else? What if the State decides that it does not have the resources to develop a section of "open space" now but will in the future? Who should pay and how much should they pay? What if the State decides that an area will be far more valuable for development in 10 -20 years and therefore decides to leave it as open space or wildlife habitat in the interim? Will the State be forced to develop that property in a low market just to satisfy some arbitrary requirement that it get fair market value now? Again, who should pay? This requirement in the definitions raises far too many questions and should be eliminated. (SC-68.14)
- On page 9 of your "Initial Proposal" you state: "Wildlife ... may defer management activities to protect wildlife habitat, provided that the trust receives the fair market value of the management rights forfeited by DNRC" "Open space ... DNRC may retain open space, aesthetic, or recreational values on trust lands, provided that the trust receives the fair market value of the management rights forfeited by DNRC." There is no such requirement to receive fair market value. (SC-77.14)
- In the description of the categories of special use (pages 8-9), there is in two places (one in the characterization of wildlife habitat, the other concerning open space) the qualifying phrase: "provided that the trust receives the fair market value of the management rights forfeited by DNRC". What could that possibly mean? I understand the notion of land as involving a bundle of rights, separable from the whole and from each other; but I have never heard of a "management right", let alone of a market for such rights. But suppose there is such a right, why would the notion of "forfeit" not apply to every special use? If he is to gain his right to develop his special use on public land, does not any special use developer (whether

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residential, commercial, industrial, recreational, or whatever) require the State to forfeit its right to manage the land in question for any other special use? Why should that developer not also pay the State fair market value not only for the right to develop his special use, but also for the management rights forfeited in his case? What seems implicit here is a notion that, because trust-land was granted in order to support the schools, its only meaning and value as public land is its revenue-return; that means that unless wildlife habitat and open space are income or revenue producing, they are not legitimate special uses and provide no legitimate management alternatives for the public land in question. If that is so, I would think that a prudent manager would sell such land and use the proceeds to acquire other land that would be income or revenue producing. Given the market for land, that probably means getting much less acreage; perhaps more could be acquired by (a two-party or three-party) trade. But I find it hard to think that the income generated by lease or license or whatever device is appropriate for maintaining open space and wildlife habitat would come anywhere near bringing a return equal to what could be gained from the much smaller parcel(s) obtained by sale or trade and developed in one or more of the four remaining special use categories. (SC-70.8)

2.2.3 Existing Program Processes

- Page 10, 2.2.3: I question land sale and exchange as special uses, although this may be the best place for them. In reality they are processes to achieve property management objectives. They also apply to agriculture, grazing, minerals, recreation, and forest management as well as special uses. We need to make sure we aren't just proposing to do things based upon how we have done them in the past. (SC-23.18)
- In § 2.2.3 the State should provide significantly more detail regarding its portfolio management functions. Please describe what you do now in the arena of researching market conditions and trends, marketing commercial lands, and contributing to infrastructure improvements. (SC-68.8)
- Page 11, 2.2.3: "A competitive bid process conducted through a Request for Proposal may be used to solicit competitive bids for special uses". At Elmo, FWP was outbid, the lessee closed out, and DNRC has no lessee. FWP has also discontinued leases because of increased lease rates. How will DNRC evaluate the potential for competitive bidding processes that may result in long-term damage and reduced trust revenue? FWP suggests that competitive bids should be awarded based on the ability to manage activities in a way that is in the best long-term interest of the trust revenue and resource protection. (SC-75.9)

2.3 Alternative B:

- I generally favor Alternative B (SC-9)
- Page 12, 2.3: The proposed alternative would mean "more active and aggressive marketing of special uses". The EIS should address how much this would cost in terms of program expenditures. Increased expenditures should be weighed against increased revenues to the trust beneficiaries. (SC-75.10)
- Under Alternative B, recreational opportunities will only go down, and in time, will become minimal, thus rendering the recreational permit nearly worthless, which will also affect DNRC's ability to manage the trust fund (SC-26.4)
- Alternative B has many shortcomings (SC-72.2)
- The Montana School Boards Association (MSBA) supports Alternative B, however, we also recognize DNRC's obligation is not only to obtain the greatest benefit for the school trust in the short-term, but to consider the long-term productivity and value of

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<p>the land to ensure future returns to the trust. (SC-74.1)</p> <ul style="list-style-type: none"> • Please describe what you mean in § 2.3 by "more active and aggressive marketing?" (SC-68.9)
<p>2.3.1 Program Goals</p> <ul style="list-style-type: none"> • Page 15, 2.3.1: The third bullet should include income, risks "and impacts". I agree with diversification of uses, but don't feel special uses are suitable for a large percentage of the land base. We should focus on the limited high value opportunities. (SC-23.19) • Page 15, 2.3.1: Outlining the desired balance of "the long-term productivity of the land to ensure continued future returns to the trusts (page 7) also needs to be a goal of the program. Economic uncertainties of various leasing scenarios should be built into the analysis. (SC-75.11) • In 2.3.1 (Program Goals), six of the seven goals are financial; only the second is not (it concerns consistency in management of special uses on trust lands). That reflects the current emphasis on increasing revenue. But when the original "for the support of common schools" is translated into "generate revenue" and now into "increase revenue as much as possible", something is being ignored. Trust-land can support schools in other ways than revenue production: for example, some land is suitable for the location of school buildings and facilities; for another example, some lands can become laboratories for school-children's use in biological (botanical, zoological), historical and cultural, studies. Just as 'highest and best use' of land is not always the use that brings the greatest monetary return, so management of public lands to support schools is not always management for the most money, especially if this involves disregard of impacts on and costs to those in a local area affected by that management effort. (SC-70.9)
<p>2.3.2 Program Objectives</p> <ul style="list-style-type: none"> • Page 15, 2.3.2: The optimal future use of the land is an unclear concept. What is it that will be optimized? A variety of optimization scenarios should be evaluated in alternative development. (SC-75.12) • Section 2.3.2 states that environmental review is required by local authorities in planning and subdivision review. Meaningful analysis rarely occurs due to lack of resources available, standards of analysis and lack of state level review. The state should not rely on local environmental review without thorough review. (SC-67.5)
<p>2.3.4 Land Suitability Criteria</p> <ul style="list-style-type: none"> • Page 15, 2.3.4: I don't like the criteria "No longer feasible to be managed for natural resource production". There is a connotation that all uses are exclusive. I also do not like the criteria "suitable for sale or exchange". The reader has no idea how this is determined. (SC-23.20) • On page 15 of the scoping document DNRC has identified Land Suitability Criteria several of which may potentially conflict with each other (i.e., grazing or mineral, crop and timber production vs. lands with real estate amenities such as views or water frontage vs. critical wildlife management, plant community, archeological or paleontological resource areas). How does DNRC intend to resolve conflicts if, for example, an area along a bull trout spawning stream is deemed to have high real estate value? A mechanism for conflicts must be developed and included in the final plan. (SC-69.4) • It is unclear in the document how conflicts in land use are to be resolved. Page 15 of the scoping document discusses land suitability criteria but does not discuss how to

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resolve conflicting uses. If for example, an area is critical elk winter range and a potential mine site -- what is the process for deciding between these two competing uses? (SC-68.44)

- In 2.3.4 (Land Suitability Criteria), the list of ten criteria seems to be somewhat haphazard, but this is so partly because it is addressing very different things under the same name. There is a horizon within which the criteria appear: the overall horizon of trust-land which needs to be managed in such way as makes it contribute to the support of public schools.
 - a. The first land-suitability criterion would come to light with the question: Can this-or that parcel of land be managed so as to contribute to that end? If it cannot, then it is unsuitable to retain, and thus "suitable for sale or exchange".
 - b. After sorting out lands according to this suitability-for-retention criterion, the next criterion comes to light with the question: How can it be managed so as to make the best contribution to that end? It is likely that any parcel can contribute under several different management alternatives; in particular, there are the variety of alternatives that involve general uses (timberharvest, agricultural crops, mineral production) and others that involve various special uses. At this point there are several variables that bring to light several criteria.
 - 1) The first variable relates to physical character, and the land's ability (because of its inherent character) to make a contribution in these ways but not in those: certain topography and soils may make a parcel unsuitable for building structures, but make it suitable for wildlife habitat. Different uses require different land-features for them to be possible, and land can be sorted out and classified according to the uses which its physical features make possible. This is a physical suitability criterion.
 - 2) The second variable relates to the relative location of the land, and its functions (actual and possible) in virtue of that location. Here there are different levels on which one can speak of such functions: the physical and ecological, the social and political, and the infrastructural and developmental, for example.
 - (a) On the physical level, the land may play a role in larger eco-systems which reach quite beyond the parcel itself. that could make it suitable for management with an eye to wildlife or plant communities. Having a role in one or more ecological systems makes land be suitable for management with that value in mind-- management for wildlife habitat, say. The other side of this is that if land does play a significant ecological role, management for other uses can produce impacts on the trust-land which reach beyond it, and affect the viability of larger eco-systems that make the land not an isolated parcel without significant connection with anything beyond its boundaries. We could call this the physical-location suitability criterion.
 - (b) On the social and political level, the land is located in a context that may include other public land but is likely to include private land. And here several criteria are visible. (1) If it lies within a local government planning jurisdiction, there are the questions concerning the way local plans identify the suitability of the private land for use or development; from the perspective of those plans, what management possibilities would enable the uses of trust-land to fit with those of the local planning/zoning? Would a proposed use produce conflicts-- in particular, those of the sort which zoning is meant to reduce? Here suitability concerns this matter of the fit of uses, where the context of use is established by local government. We could call this local planning suitability criterion. (2)

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Whether or not the land lies within a local government planning jurisdiction, it lies in a context of lands, land-ownerships, and established uses (what is actually happening, not what the plan calls for in future), and within the jurisdiction of some local government. That context may be rural, semi-urban or urban, or of a number of other kinds. The current functioning of such a context involves social and economic values that are important for the people in question; it also involves taxation to support and maintain the local public facilities and amenities that support the life of the people there. Whether or not a proposed management-use of trust land in their midst is suitable is in this case a function of what the impact of uses/changes on trust-land is-and is seen to be. Does it raise local taxes because of road improvements required to handle trust-land traffic? Does it diminish the quality of life desired by the people already there? etc. etc. Here suitability concerns the fit of the proposed management-use of trust-land with such a context, the degree of harmony of the impacts of that management-use on what is actually there. We could call this local use-context suitability criterion.

- (c) On the infrastructural and developmental, the land and land-use context for trust-land may involve actual (or planned) infrastructure and actual (or planned) development that makes a management alternative feasible whereas if the actual physical-and-use setting were different it would not be. We could call this local-development-context suitability criterion.
- c. Supposing that several different uses of any trust-land might be more or less suitable in terms of the preceding criteria, there is need as well for two final suitability-criteria, relating to the degree of a management alternative's contribution to the support of public schools, and to the measure in which each alternative succeeds in maintaining the long-term viability of the land in question for contributing to the support of the public schools. In both cases, the way the current proposal is being developed, it comes down to which alternative makes the most money for the schools and does so in a way that maintains the capacity of the land to continue making money. (I would not agree that that is the proper aim of agency management of trust-land; properly, the aim should be to make the greatest contribution to the support of the schools, without that contribution being measured simply in terms of revenue). We could call this the overall school-support suitability criterion. Any assessment of potential in this regard is of course complex and risky, but some standard by which to measure alternative management-uses in their contribution to the end or purpose of the agency's action is needed. (SC-70.9)

2.3.5 Program Processes to Assess Project Suitability

- Pages 16 – 18, 2.3.5: Categories of uses are not the same as in 2.2.1. (SC-23.21)
- § 2.3.5 needs some update and clarification. Please discuss the exemption the State has from local zoning requirements. Please update the discussion on subdivision review based on the most recent changes to the law made by the 2001 Legislature. In addition, the section on subdivisions should discuss the exemption the State has from most subdivision review. (SC-68.10)
- The definition of "suburban" on page 17 should include the fact that it is supposed to be near an urban area. Suburb in Webster's dictionary means "an outlying part of a city or town." The definition used in the document makes it sound like a suburb could occur in the middle of nowhere. This is contrary to the definition. (SC-68.11)
- As it is written (e.g., Appendix K), it appears that the agency may value the land and

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<p>develop a marketing plan after an application is initiated. This analysis process, to the extent that it is an analysis, is too vague and comes too late in the process to provide any meaningful guidance. DNRC should draft alternatives to address these questions:</p> <ul style="list-style-type: none"> ▪ What is the current value of the trust assets? What is the projected future value of the trust assets? How are the assets valued? What are the characteristics of a valuable asset? ▪ What criteria will the agency apply to manage the portfolio? ▪ What economic model will the agency use to calculate benefit and the risk? What economic model will it use to project profitability in the long-term? ▪ If the state intends to take more active role in management and development, how does the agency intend to calculate the cost of management in the profitability of the project? (For example as you learned in Billings, developing housing is much more labor intensive than managing a pasture.) ▪ Has the state applied certain criteria (perhaps like the coarse filter) that consider economic value and future growth trends? ▪ Does the state have a mechanism for reviewing the lands that have been designated as transition lands? ▪ How will the value of the trust asset be enhanced? How will the enhancement be measured? (SC-78.6)
<p>2.3.6 Relationship to MEPA</p> <ul style="list-style-type: none"> • Page 18, 2.3.6: The first sentence needs to include a reference to the significance of impacts. Just because a project is mitigated doesn't mean it doesn't have significant impacts. If a project has uncertainty regarding the significance of impacts, an EIS must be completed. (SC-23.22)
<p>Comments Addressing Alternatives or Suggesting New Alternatives:</p>
<p>General:</p> <ul style="list-style-type: none"> • I question whether Alternatives A & B are legal (SC-22.3) • Look at how other states manage their trust lands (SC-31.5, SC-32.5, SC-34.4, SC-36.3, SC-38.5, SC-39.6, SC-40.4, SC-41.5, SC-42.5, SC-44.2, SC-54.4, SC-64.7, SC-78.8, SC-80.1) • The two alternatives developed in this scoping document appear to be a narrow interpretation of the trust land management mission. The development of the EIS should include some discussion of the discretion allowed within the trust mandate and a full range of reasonable alternatives developed for management of special uses on trust lands. (SC-75.1) • The EIS should include a detailed description of the affected environment. As it is written now there is little discussion of the physical environment. For example, how many parcels of State lands are nearby or adjacent to urban areas? How many acres are likely to be considered for development within a specified time frame? How many acres of State lands are considered critical wildlife habitat? How many acres have potentially conflicting land uses that are likely to occur within a specified time frame? The State should adequately describe (and map) the areas it manages. The State should thoroughly describe the affected environment, the potential cumulative effects of its alternatives, and provide an accurate inventory of the major resources that will be affected. (SC-68.46) • In the public meeting discussing this document, the State said it would look at existing conditions. It was unclear what the State meant by that statement. There needs to be a mechanism for the state to identify all of those parcels that are within a

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certain distance (i.e., 10 miles) of urban areas, investigate their development potential and prioritize them for development. That is the only way the state can be proactive in the development of these parcels. Without this level of analysis the State will constantly be in a reactive mode toward development and that is what this EIS should be trying to avoid. (SC-68.47)

- The State needs a database that shows where certain uses are located. For example, DNRC needs a database on where conservation easements are. (SC-68.48)
- The EIS should include a thorough discussion of the proposed mitigation and monitoring plans associated with each alternative. For example, in the hypothetical scenario where the State chooses to aggressively market and develop its school trust lands in the urbanizing areas, how does the Department propose to control the spread of noxious weeds? How will the Department ensure that water quality is not degraded in nearby waterways? What type of monitoring protocol will be followed? What about enforcement measures? How will the Department ensure compliance with mitigation? (SC-68.50)
- MEIC is concerned that while DNRC appears to be embarking on an ambitious program to develop State lands that they may not have the staff and resources to carry out the proposal. The EIS should fully disclose the budgetary considerations associated with each alternative and a realistic assessment of whether resources will be available to adequately implement each proposed alternative. (SC-68.51)
- Rather than increasing the intensity of development, DNRC should consider increasing rates charged for current levels of activities. (SC-68.52)
- The State should develop alternatives that consider non-consumptive and nonextractive uses and that yield benefits to school children and the general public in the form of educational opportunities. (SC-68.54)
- DNRC should develop alternatives that can make use of these lands in a manner that provides direct educational benefits to schools and school students such as outdoor classrooms and study sites. These activities might provide more long-term "benefits" to the schools and the trusts. (SC-69.8)
- The EIS must identify the duration of the plan, how changes will be made to the plan and monitoring criteria developed to identify when changes need to be made. Criteria for changing the status of lands currently deferred from being included in this plan also need to be developed. (SC-69.6)
- The proposal is reactive rather than proactive. The existing and proposed processes outlined in the Appendices are triggered by an application, usually from an outside party. Instead of waiting for a proposal to come forward, DNRC should initiate the evaluation process on all of its lands and other trust assets in order to evaluate and assess the lands. It should determine what the asset is worth, determine its potential uses, prioritize the potential uses, value the potential uses with an economic model, and then actively target those types of uses. (SC-78.7)
- End Commercial, Industrial and Recreational activities as they expire. Leave state lands alone (SC-3)
- The suitability analysis should consider eliminating inappropriate uses. Special consideration should be given to leases in forested areas which might prevent or limit natural or prescribed forest fires. (SC-67.6)
- Explore a range of alternatives (SC-23.5, SC-31.4, SC-32.4, SC-34.3, SC-36.3, SC-38.4, SC-39.5, SC-40.3, SC-41.4, SC-46.4, SC-54.4, SC-56.1, SC-57.4, SC-64.6, SC-65.6, SC-69.3, SC-78.1, SC-80.2)

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- Plan implementation. I have two concerns: (1) DNRC will not have the funds and specialized staffing necessary to implement the plan effectively; and (2) The public will be left out of site-specific special use permitting processes in rural areas. My suggestions are:
 - Besides the DNRC planners recently hired, expertise in real estate development, marketing, public involvement, conflict resolution, conservation easements, and local government finance will be critical. The plan should include an in-house staffing and funding strategy in its implementation section. The plan should also include a commitment to regular program evaluation and, as needed, plan revision. A five-year cycle would be reasonable. Public involvement should be built into the regular plan and program reviews.
 - Each Area Office should establish an ongoing citizens advisory committee, to advise DNRC staff on implementation of the Special Uses Management Plan. (SC-47.11)
- An additional Alternative C might be created that would deal with the role of adequate public participation in the reclassification process and meeting the standards set forth in our Montana Constitution. Therefore I request that the DNRC creates an additional Alternative C in its Initial Proposal for a Special Uses Management Plan and extends the deadline. (SC-72.9)
- The agency should draft an alternative that includes an initial evaluation process, like the coarse screening with an economic feasibility component, for all trust lands. It should assess the potential uses, value the property and determine a range of possible uses. Once the range of uses is identified, it should approach the local community for input. Lands that are transitional or urbanizable should be categorized as transitional lands (or a similar designation and then the state should develop a management plan, including an economic analysis, for those lands in particular. If the state had a specific plan and long-term and short-term management strategies, the agency would be more able to actively market and participate in the management of the lands. (SC-78.4)
- Additional alternatives should be considered by this EIS. I would suggest the following:
 - CONSERVATION ALTERNATIVE setting out a method to best protect granted land from environmental degradation whenever special uses are considered.
 - AN ALTERNATIVE providing for public input prior to any special use designations being made or lease, exchanges or sales being granted and providing for Land Board decision making. (SC-77.11)

GENERAL CATEGORIES:

Land-use Issues:

- Special uses should be compatible with surrounding areas. (SC-16.3)
- Special uses should be appropriate public uses of the areas (SC-16.4)
- Access (SC-15.1)
- Boundary markings (SC-15.2)
- Steer development toward areas close to existing population centers where infrastructures already exist, instead of promoting fragmentation of wildlife habitat (SC-33.4)
- Give consideration and advice to the urban area government so as not to be at odds with local area plans for development. (SC-53)
- Land trusts often work closely with local governments in their effort to develop

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"liveable communities" with plenty of green space and trail corridors. It is these kind of amenities that will make Montana communities competitive with others that are attracting new businesses and industries. State school sections near urbanizing areas should be considered within this broad economic picture and not simply for their potential to be developed as commercial, industrial or residential. In the EIS, please examine and allow for creative approaches and partnerships to provide both a mix of income and green space. (SC-66.4, SC-83.4)

- Any development should occur within Great Falls city limits as opposed to sprawl outside those limits, which is already a concern with the City-County Planning Board. (SC-71)
- Because almost all trust lands that might be developed for urban uses lie at the outskirts of cities and towns, won't residential, commercial and industrial development on such trust lands contribute to urban sprawl, increasing the costs of extending water and sewer and other services and weakening existing downtown business districts? Doesn't developing outlying lands conflict with sound planning, which tries to direct new growth into existing urban areas that have services already in place? (SC-76.2)
- The plan should include a policy whereby the impacts of a special use permit on local government and other local service providers (e.g., road systems, fire protection, law enforcement) would be estimated and fully mitigated. (SC-47.5)
- Region-by-region, the plan should include an evaluation of State trust lands for suitability for the broad categories of land use. The suitability assessment should involve local government officials, planning boards, and planning staffs who can best apply their local land use policies and regulations to a given situation. A suitability map should be prepared and included in the plan. The map would identify "prime" lands for residential, commercial, public/quasi-public, recreational, and conservation potential. If the plan itself does not do this, then this should be Plan Implementation Step #1, to be accomplished by each Area Office through a public process before new special use permits are issued. (SC-47.6)
- There should be a square footage cap on all developments. Very large retail stores can be difficult to re-lease. These types of structures are usually built to suit the particular needs of one company. The State should do everything it can to guarantee that the property will be easy to re-lease. (SC-68.18)
- How would a transfer of development rights system work if an area is not subject to zoning? (SC-68.36)
- In large developments that are constructed over many years, the State should have an established phase-in criteria. The State should not allow a developer to begin phasing in a new area until the previous area is at least 80 percent constructed. This will help avoid leap-frog development. Most communities want to encourage infill development. The State should do what it can to assist communities in that endeavor. (SC-68.37)
- The proposal fails to provide overall criteria for prioritizing uses on trust lands. While the proposal does provide more criteria by which to judge individual projects, it does little to guide the treatment of trust lands, as a whole. In order for the state to manage lands profitably, it must develop and adopt criteria for valuing the assets of the trust and for managing for the highest and best use. For example, how will the agency decide which uses are more valuable, which uses are less valuable? What are the characteristics of a desirable use--non-polluting? Provides high paying jobs for the community? Highly profitable in the short term? Right now, the-state simply

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<p>relies on the assurances of the developer that the project will be successful. Without an overall program for managing the assets of the trust, no meaningful prioritization can be conducted. (SC-78.2)</p> <ul style="list-style-type: none"> • The state needs additional criteria to determine which properties to avoid and which to target for future development. Such criteria should include but not be limited to such things as: <ul style="list-style-type: none"> ▪ determining whether the department has adequate resources to manage the property, especially if problems develop; ▪ growth patterns of the community; ▪ What type of zoning exists on the parcel; ▪ Whether development is anticipated in the community's growth policy ▪ What type (residential, commercial, industrial, professional) of development is appropriate according to growth policies, zoning or existing development; ▪ intensity of development that is appropriate; ▪ community values for the property; ▪ environmental constraints of the property; ▪ Opportunity costs, i.e., developing now versus developing in 10 or 20 years; ▪ financial risk of development; ▪ ability of community to absorb the use; ▪ use of surrounding properties; and ▪ distance from urban area. (SC-68.43) • Should DNRC proceed with urban development proposals if the proposals compromise, diminish, undermine or conflict with local plans, policies, assets, and values? (SC-81.11) • Wouldn't it be in the best interests of Montanans if trust lands were developed, traded or leased for such community benefits as sites for water/sewer facilities, landfills, transfer stations, or to provide affordable housing? (SC-81.13) • How can local officials and citizens influence development of trust lands? How can cities and towns and citizens protect local values where a DNRC proposal harms or conflicts with local plans, policies and interests? (SC-81.14)
<p>Public Access and Recreation:</p> <ul style="list-style-type: none"> • Real estate and wealthy out-of-state landowners want our public state lands to block access to federal public lands (SC-22.5) • Accessible state lands should not be in the BMP (SC-22.7) • Recreational pursuits (SC-15.3) • Prioritize ecologically sensitive lands for protection, especially those that are critically important for wildlife uses and those of unique recreation value (SC-33.2) • State land snowmobile trails need to continue on state lands (SC-45.1) • ATV trails need to be designated so people have an idea where they can go (SC-45.2) • All roads developed, exchanged or leased should be open to the public. (SC-68.32)
<p>Public Involvement:</p> <ul style="list-style-type: none"> • I recommend that all persons who provide an e-mail address be informed electronically to offset the impact of paper going to landfills (SC-4). • Although the general objective, or mission statement, might be laudatory, it is the lack of grassroots public decision which is lacking in this initial scoping process. It has many implications which are obviously not in the interest for the people of Montana. Consideration of the value of production whether for timber, gas or oil, real

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estate near urban arm, grazing, recreation, or for whatever reason the DNRC leases, exchanges, or sells land, it calls for a continued reclassification process of school trust lands, and this is solely within the discretion of the governmental agency which has reserved the right to determine the economic conditions of the marketplace of each portfolio at any given time. (SC-72.3)

- Another implication of the initial proposal is that reclassification might not necessarily be in the interest of the State of Montana. Without a public process, citizens would have no way of establishing the importance of other values. The attempt is clearly seeking a Special Uses Management Plan based upon the idea of obtaining a "fair market value" of school trust lands in its leases, sale of the lands, or exchanges. It is proposed that economic values become the over riding factor. This determinant could conflict with public opinion, and especially when the greater weight given to economic values rather than to others such as conservation, historic, human, landscape, and natural etc. The danger is that the public does not know the status of each parcel of school trust land at any given time. The temptation is that each parcel of land is to be seen as some sort of investment like and an investment portfolio from an individual who views his/her holdings in the stock market expecting to maximize the value of shares. (SC-72.5)
- How will the agency engage the public? On a project-by-project basis? (SC-78.4)

Environmental Effects:

Socio-Economic:

- There should be no preference for sale of state land to adjacent landowners (SC-11.1)
- All leases, revenues must be equivalent to what the private sector obtains (SC-11.3)
- Competitive leasing to the highest bidder (SC-15.4)
- No sale of state lands, and trade only when the state obviously benefits more than the requesting party (SC-6)
- Consider long-term values for the future human population as having greater priority than high current market values (SC-33.5)
- Money is a factor, not the factor when evaluating School Trust lands. If an arbitrary amount of 5% return is set as the market value, many leases/licenses will be dropped and the trust will get 0% return (SC-26.2)
- Developments designed to maximize financial returns to the trust may ultimately increase governmental costs to the remainder of the community. The EIS should address this issue of additional costs to the surrounding community. (SC-75.7)
- Does the trust mandate require DNRC to capture full market value of a property when that value includes, for example, exclusive access to adjacent public lands and resources? (SC-75.14)
- The proposed suitability criterion where land is no longer economically feasible to manage for natural resource production needs more clarification. FWP understands the utility of this criterion where, for example, communities have developed around the state parcel. However, FWP has serious concerns if DNRC uses this criterion on parcels where high public resource values and associated public scrutiny of DNRC management activities exist. Marketing such parcels may only add to conflicts that have caused public concerns in the first place. Such lands should be dealt with in other ways and not included in the special uses plan. (SC-75.15)
- A thorough economic analysis of the project should be included in the environmental

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analysis. Losses of ecological integrity should be considered in the economic analysis in terms of loss of habitat and ability of the forests to provide ecosystem services. Although we recognize that it is the policy of the DNRC to conduct a non-discounted economic analysis that does not consider sufficiently future costs or non-commodity values, we believe that the narrowness of the economic analysis is unreasonable given the Mission of the trust to maximize revenue from school trust lands. The future revenue generating, potential of the trust lands must be considered. The proposed projects may not be financially responsible when considering potential future revenue generation. The large-scale soil and hydrology disruptions associated with the development and other special uses may significantly degrade the integrity of the forest and future revenue generating opportunities. (SC-62.2)

- While income generation for school trusts is a consideration in managing trust lands, the Montana Supreme Court has made clear that income generation should not be the only consideration: "Maximizing income is not paramount to the exclusion of wildlife or environmental considerations" (Ravalli County Fish and Game Association v. Montana Department of State Lands, Montana Reporter. 158-907 P.2d 1 '170, September 29, 1995). (SC-62.3)
- An economic analysis of State School Trust Lands states that: The distinction between current cash flow and asset value is especially important to those charged with managing a trust. While a private commercial business may legitimately emphasize current cash flow, treating the long run value of the business as a going concern as a secondary matter. a trustee has a fiduciary responsibility that requires that the long term value of the trust be taken into consideration. A trust is not simply a commercial business. In the context of a trust, it is not unusual to sacrifice a potentially larger current cash flow ill the protection of longer-term asset values (Power 1996). (SC-62.4)
- What is the current amount of revenue generated from special uses? What has been the amount of revenue generated each year over the last 10 years? SC-68.12)
- The State must maintain a diverse portfolio in order to effectively manage the trust in perpetuity. How does the State anticipate maintaining a diverse portfolio? Especially given the requirement that it either gets fair market value for that diversity or is forced to develop at potentially inappropriate times. (SC-68.15)
- What type of market analysis will the State conduct before allowing development of State lands. The State should ensure that any development that is allowed on State lands is appropriate and will generate income in the long-term. Relying on a developer to make these decisions is abdicating the trust responsibility. The State is the only one in such a transaction who has the best interest of the trust in mind. The State should also do its homework before it allows developers to erect permanent structures that the State is ultimately responsible for on State lands. (SC-68.16)
- The State should spell out who is responsible for paying taxes on the property and what those taxes consist of. (SC-68.17)
- How will the State analyze the financial capability, solvency and history of developers and/or lessees? When a new partnership is formed the State should analyze the financial solvency of each of the principles. It should not assume that because it is a new entity that it has no information to analyze. How will the State verify the financial records provided by the developer/ lessee? (SC-68.19)
- How will the State structure leases? What will the term be? How will they increase over time? When will they be renewed? What interest does the original lessee have

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in the renewal process? (SC-68.20)

- All properties should be subject to independent third party appraisals. In house appraisals by the State are useful and have a purpose but the State should verify its calculations using outside professionals. In addition, all comparisons for appraisal purposes should be within the same immediate geographic area and market. Under no circumstances should the State use properties more than 5 miles from the property. (SC-68.21)
- How will the State avoid liability issues associated with some types of potentially hazardous waste generating activities such as gas stations, landfills, dry cleaners, etc? The State should develop a clear system for bonding users/ developers of State lands and a system of increasing bonds over time as more information becomes available. The State should have the ability to increase a bond at any time during the lease. It should not have to wait for lease renewals or periodic reviews. (SC-68.22)
- The State must ensure that each alternative considered is fiscally prudent and the State must fully disclose the costs associated with implementation. For example, an alternative that calls for aggressive development has costs associated with noxious weed control and likely with loss of productivity of the site over time. What about costs to local communities caused by sprawl? These costs must be fully disclosed and objectively analyzed. In some instances, the most prudent path may be one where development does not occur because the long-term economic and social costs do not outweigh purported short-term benefits. While we understand the State is somewhat constrained in their analysis, we believe that this programmatic EIS would greatly benefit from an independent analysis by economist(s), sociologist(s), planner(s), and wildlife biologist(s). (SC-68.23)
- How will the State decide the present value of property versus the value of that same property in 10 or 20 years? Especially for high end residential development? The state needs to look at the overall portfolio and balance the need for some commercial development now versus some set aside open space that will be more valuable for development in the future. (SC-68.24)
- The State has no discussion about management costs or how they will fit into the decision making process. For example, the State of Washington in its plan said that "certain assets have attractive rates of return, but when management costs are considered, the returns are significantly diminished. Life cycle management cost can also significantly affect the net return of a given investment. The financial analysis of alternative investments should include these costs." Montana should incorporate this idea into its decision making process. Managing property costs the State and the trust. That should be included in the calculation of cost and benefit of development. (SC-68.25)
- Where is DNRC's budget to actively and aggressively market these lands and conduct the necessary analysis required under state laws? (SC-69.7)
- Since the fluctuation in market values demands that each parcel of land, or portfolio, is under a constant process of reevaluation, the difficulty is that with more than five million acres under DNRC management becomes a huge project. In fact, the task for reclassification on a continual basis is so huge that the Land Board cannot adequately supervise each portfolio. In addition, the public, or lessee, has no way of knowing the status of economic value of each parcel portfolio at any given time. Then renewal of leases, for instance, becomes a time-consuming process. And this is more so when there is a public conflict pertaining to the meaning of "long term productivity" of each portfolio. (SC-72.4)

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<ul style="list-style-type: none"> • The idea of maximizing "the greatest monetary return" for each portfolio might be in conflict with other values more important to the people of Montana. If economic value becomes the priority, the DNRC then must expect public opposition for each parcel of land. Especially if the public is unaware that a certain parcel of land has been reclassified for special uses. Litigation will be the result each time changes or reclassification of land values for the "greatest monetary return" without informing the public. This can be an expensive burden for taxpayers. (SC-72.6) • The proposal fails to consider the economic viability of development. The DNRC is obligated to manage for economic viability in long term. The agency cannot carry out this mandate without developing a plan for managing the trust assets, developing a framework for evaluation of the highest and best use, designing an economic model for evaluating investment alternatives, and developing a system for comparing actual and expected economic performance of investments and assets. THIS ANALYSIS IS ESSENTIAL. IT IS THE FOUNDATION FOR SOUND FISCAL MANAGEMENT. (SC-78.5) • The original legal mandate of the lands whose management is in question in this plan is to support the public schools by the management of those lands. This is now being interpreted as justifying a policy to "increase" the revenue and "to capture increased land value" by "appropriate special uses" (Issue 1). Are there also increased costs, risks, and liabilities that are part of this effort? Are the costs to local citizens and governments created by a State action being taken into account? Are all these costs being figured in when the "increase" and "capture" are being figured? (SC-70.6)
<p>Historic:</p> <ul style="list-style-type: none"> • We urge you to consider the historic aspects of the land, such as historic sites and trails and their long-term value to Montana. (SC-66.3, SC-83.3) • Historic review should include review of community historic records, patterns of local built environment, and local land use plans, if any. (SC-67.3)
<p>Cultural & Aesthetic:</p> <ul style="list-style-type: none"> • I understand that DNRC has a fairly progressive policy of prohibiting ORVs except on established roads. Is it possible to carry this one step further and set aside some old-growth and other pristine areas that, although they don't produce revenue directly (like cutting trees), add value in their very existence? (SC-7) • The land suitability analysis should consider natural history, historic and cultural aspects of a parcel, not marketing considerations as listed in Section 2.3.4 of the proposal. Natural history considerations should include slopes, soils, bedrock, ground water, streams, air sheds, wetlands, geologic hazards, potential wildlife habitat disruptions on and off site. (SC-67.2) • Cultural considerations should be especially cognizant of Native American sites. Those sites may be far removed from reservations. Make advance consultation with tribal preservation or cultural offices an established, routine and required part of your review process. (SC-67.4)
<p>Physical Environment:</p>
<p>General</p> <ul style="list-style-type: none"> • Maintain environmental quality of land (SC-15.5) • Destructive uses – RV's, horses, logging in eastern Montana (SC-15.7) • Ensure that long-term ecological impacts are considered for proposed developments (SC-33.3)

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- How open spaces, natural areas (created by the Natural Areas Act), recreation, and public use areas are handled to benefit the trust without destroying, damaging, developing, or leasing/licensing them for short-term financial gain or incompatible uses (SC-26.1)
- Consider and ensure that development is in the best interest of the community and environment by addressing the ecological impact of development (effects on wildlife, water and air quality) as well as the impacts to local communities (sprawl, traffic and congestion) (SC-31.1, SC-32.1, SC-36.1, SC-38.1, SC-48.1, SC-41.3, SC-42.1, SC-42.4, SC-44.4, SC-46.3, SC-54.5, SC-56.3, SC-57.1, SC-64.2, SC-80.7)
- Identify ecologically sensitive lands and prioritize those lands for protection. For example, lands critical for winter range, adjacent to sensitive fisheries, and imminently threatened by development should be protected (SC-31.6, SC-32.6, SC-38.6, SC-39.7, SC-40.5, SC-41.6, SC-42.3, SC-46.5, SC-54.7, SC-56.7, SC-57.1 and SC-57.3, SC-64.1, SC-65.4, SC-80.4)
- How can the conflicting objectives of natural resource protection and income maximization be resolved? (SC-67.1)
- Existing special uses and trust lands appropriate for special uses should be mapped. (SC-67.8)
- To develop a plan for managing various lands, it would seem to me necessary to inventory what you have. Such an inventory would include at least a description of the location, nature, and current function(s), of the land areas involved, and in each case a characterization of the land's relation to surrounding lands and land-uses, of the way in which it is currently integrated into a context and is currently functioning in relation to its context. In particular, I think of ecological features of the land, which would be broader than any single parcel or set of parcels (does the land have a role in a larger natural area?), and of the socio-economic nature of surrounding land-uses (are those uses dominantly agricultural, or residential, or ... ?). Unless the plan is simply a reaction-guiding document, and not pro-active as a management plan can and should be, a good inventory would seem essential at the start. But I see no sign of it in the present proposal. (SC-70.1)
- We are particularly concerned with the provisions in the proposed alternative for extensive commercial and residential development of school trust lands. The ecological impacts of developing structures on state trust lands should be thoroughly considered. Converting wild lands to residences represents a long-term commitment of the resources of wild ecosystems and loss of habitat. The long-term ecological and economic impacts of permitting residential and commercial development must be thoroughly considered. (SC-62.5)
- We are concerned that allowing for development may result in the DNRC incurring substantial ecological and economic costs associated with maintaining roads to the structures. Roads often have devastating impacts on water quality and fish habitat by increasing landslides, erosion, and siltation of streams. Roads also fragment forests and degrade or eliminate habitat for species that depend on remote landscapes, such as grizzly bears, wolves, and other large, wide-ranging predators (Trornbulak and Frissel 2000). The habitat fragmentation, erosion, and sediment transport associated with roads is a major threat to the integrity of our forest ecosystems. (SC-62.10)
- The State should require all landscaping on State lands to be energy and water efficient. Attractive xeriscape landscapes should be required. No or limited watering systems should be allowed. If the State has to take over the property, it should not

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<p>have to worry about freezing water lines, dying parched landscapes and water and energy costs. (SC-68.27)</p> <ul style="list-style-type: none"> • The State should require all buildings to be energy and water efficient. The State should require the use of compact florescent lights, low flow water systems, an R-value of 30 or above for building materials, energy efficient windows, solar heating, and low pressure sodium outdoor lighting. The State should encourage innovative designs that maximize energy efficiency. The State should prohibit inefficient building materials, electric heating systems, and inefficient outdoor lighting like mercury vapor lighting or high-pressure sodium. All outdoor lighting should be shielded. (SC-68.28) • All potentially developable properties should be evaluated for environmental constraints and any impacts should be eliminated or minimized. For example, the State should look at: the fluctuations in the water table over the year and in wet and dry years; the impacts from potential uses of the parcel on the quality and quantity of ground and surface waters; the impacts of the use of water on fisheries and wildlife; the air quality of the area and ways to minimize impacts on nearby residents and the air shed; ways to minimize the impacts of noise on residents and wildlife in the area; and ways to minimize the impacts of associated odors from the development. (SC-68.30) • The State could save scarce resources by doing up-front analysis of properties. The State of Washington said in its plan that "environmental analysis of properties before they are formally identified as transition lands leads to environmentally sensitive and cost effective allocation decision, while implementing the program goals.... Identifying and evaluating the environmental elements and the natural resource capabilities on potential transition lands aids the department in determining a range of suitable uses for the land." This makes a tremendous amount of sense fiscally, environmentally and socially and the State should incorporate the idea into its evaluation of parcels. (SC-68.35)
<p>Air Quality:</p> <ul style="list-style-type: none"> • All roads on lands developed for residential and commercial use should be paved to decrease dust. (SC-68.31)
<p>Water Quality:</p> <ul style="list-style-type: none"> • Development should be prohibited from using septic and well systems. All development should be required to hook into city water and sewer. Variances should be allowed only in exceptional circumstances. If there is no city water and sewer or the parcel is too far from the community then it is probably inappropriate to develop at that time. The State should either conduct or require the developer to conduct an analysis in the extension and adequacy of water and sewer systems that will service the area. The State of Washington recognized that most property that should and would be developed had access to sewer and water. It stated in its plan that urban lands are "...those areas which within ten years are expected to be intensively used for locations of buildings, structures, and usually have urban governmental services." (Emphasis added.) SC-68.34)
<p>Agricultural Land:</p> <ul style="list-style-type: none"> • I strongly favor grazing leases (SC-8.3) • We are losing high producing farm and rangeland to developments and recreational projects which may bring in more money but only make us more dependent on other countries to feed us. We all need to take a long hard look at what land will be producing food for our future generations (SC-50) • I recommend putting in place guidelines to protect grazing and agricultural leases

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<p>from recreational organizations with grant money as we cannot compete on the same level when it comes to the competitive bid process. (SC-73)</p>
<p>Forest:</p> <ul style="list-style-type: none"> • Maintain Old Growth Forests (SC-16.1) • Prioritize ecologically sensitive lands for protection, especially those that are critically important for wildlife uses and those of unique recreation value (SC-33.2) • The EIS should thoroughly consider the potential impact to old growth of the proposed special use plan. Old growth is an ecosystem state rather than a state of individual trees. Those species that are dependent on old growth ecosystems are primarily dependent on old growth characteristics rather than the presence of large trees. These old growth characteristics include high levels of age class diversity and structural complexity, abundant snags, high levels of soil nutrients, and a rich understory of shade tolerant species. The presence of old trees generally signifies a relatively undisturbed ecosystem. As the DNRC is currently in the process of revising its old growth definition. Forests possessing old growth attributes should not be disturbed until the land board addresses the old-growth requirements of the 1996 State Forest Land Management Plan. All stands within the project area must be compared to the Green et al. definition of old-growth. No logging should occur in stands meeting the Green et al. definition. As the DNRC's old growth technical review committee's report suggests that development of an old-growth network is essential, the DNRC must spatially consider the potential importance of old growth and mature stands in the project area. (SC-62.11) • Please provide a map that identifies state trust lands that could qualify for a 'Special Use' permit and also meet the Green et al. definition of old growth forest. (SC-63.6) • How will this programmatic process affect the retention of old growth forests on state trust lands? (SC-63.7)
<p>Weeds:</p> <ul style="list-style-type: none"> • Weed control (SC-15.6, SC-25) • Weed management should be an integral part of this plan. A partnership needs to be established between the Montana Weed Control Association and DNRC to develop a weed management plan to be implemented on all school trust lands. (SC-30) • Information on the management of noxious weeds should be a part of the criteria in the plan (SC-55) • Noxious weeds should be addressed in program goals, objectives, strategies, criteria and processes (SC-59) • How will the State manage weeds on these parcels? How will it prevent noxious weed infestations? What will it do if one occurs? The State should have a system whereby it imposes fines on lessees who fail to control weeds. And the fine should be sufficient to discourage poor weed management. (SC-68.26)
<p>Wildlife Habitat and Open Space:</p> <ul style="list-style-type: none"> • No net loss for wildlife habitat (SC-11.2) • Maintain wildlife habitat (SC-16.2) • The Initial Proposal includes the phrase "provided that the trust receives fair market value of the management rights forfeited by DNRC" in considering wildlife habitat and open space. Flexibility should be maintained by DNRC in both considerations. While direct monetary value may not accrue to the trust in every instance, there is immeasurable value in maintaining and promoting wildlife habitat and open space for

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students, communities and all of Montana. This issue needs further review. (SC-74.2)

- I was pleased to see that open space is one of the existing special use categories. We encourage the state to examine the use of conservation easements and other tools to retain state land as open space as identified in your preliminary program (SC-66.2)
- We are particularly concerned with the potential fragmentation and disruption of biological corridors associated with special uses including development and motorized recreation. Impacts to fragmentation and the functionality of biological corridors of the already heavily fragmented state trust lands should be a focus of the analysis. Habitat fragmentation may result in smaller and more isolated wildlife populations, particularly for species such as Grizzly Bears with demanding habitat needs. Smaller populations are more vulnerable to local extinction, due to stochastic events (Gilpin and Soule 1986). Smaller Populations are also more susceptible to the negative effects of inbreeding depression. Hence, maintaining landscape connectivity is essential to allowing for the replenishing of populations and expansion of the gene pool (Noss 1983, 1987, 1992; Noss and Harris 1986.- Craighead and Vyse 1995; Paetkau et al. 1997, Beir 1993). Fragmentation may substantially alter the microclimate of forests edges as well as interiors (i.e. radiation, wind, and water fluxes). The following fragment parameters determine the degree to which this augmented isolation will affect wildlife populations and ecosystem properties: remnant size and shape, time since isolation, distance from other remnants or an unfragmented block, connectivity, nature of the surrounding habitat (dissimilarity between remnant and surrounding habitat) (Saunders et al. 1991). (SC-62.6)
- The initial proposal states: "Lands that possess attributes of value to wildlife for forage, reproduction, and/or security. On trust lands with unique wildlife habitat values, DNRC may defer management activities to protect wildlife habitat, provided that the trust receives the fair market value of the rights forfeited by DNRC. Examples of mechanisms to secure interests of unique wildlife habitat could include special leases or conservation licenses." We request explanation of the origin of these statements regarding wildlife habitat. While the statement regarding fair market value appears to result from the bill recently passed by the Montana legislature (SB 354), we request that the DNRC clarify this. The DNRC is required to abide by federal laws, including the endangered species act in the management of state trust land. Deferral of lands for wildlife is necessary to meet federal laws and to maximize public benefit of school trust lands as discussed above.
- Please detail the avenues available in the proposal to conserve state lands for wildlife habitat and ecosystem services. (SC-63.4)
- Please provide a map of state trust lands that could qualify for a 'Special Use' permit that are sensitive wildlife habitat core areas or corridors. (SC-63.5)

Fisheries:

- What is the DNRC position on the poisoning of 1-1/2 miles of Carpenter Creek under the experiment funded by Turner's endangered species fund? Montana's wild fisheries will be destroyed. (SC-22.6)

TLMD Management Issues:

- Sale of lands (SC-8.1)
- Conservation leases (SC-8.2)
- Stop trading state land just because it is inaccessible (SC-15.8)

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- Do not sell any state lands (SC-18, SC-22.2)
- Trust lands do not have to be leased, sold or otherwise “disposed of” for our children’s sake. The state government owes our children an education, and it should not be at the expense of the land in their future. We are taking from them to give to them and that makes no sense. (SC-76.1)
- One of the greatest challenges is to insure that special interests do not derail efforts to secure the greatest advantage to the trust beneficiaries. We should consider emphasizing those parts of the program where competitive processes are possible, and avoid as much as possible mechanisms where an open market is stifled. (SC-23.3)
- I don’t support proposals that would promote an increase in permanent disposition of trust lands (permanent conservation easements, purchase/sale of development rights). I suggest we consider these permanent dispositions differently than other special uses. These uses include irreversible and irretrievable commitments of resources and should be approved by the Land Board. (SC-23.9)
- Do not sell any land unless it would earn more money. When you sell land, the money is spent and the land is gone forever. (SC-82.1)
- Who will be responsible for the maintenance on properties and what happens if the lessee fails to do so? (SC-68.33)
- Use of the land should earn the most income possible and comply with local land planning and the highest environmental standards. (SC-82.2)
- How did the Board of Regents get away with selling state lands? (SC-22.2)
- Be sure that trades or transfers of state land are equitable (SC-18)
- Sales should be kept to a minimum and the less development the better – there is plenty of private land for commercial things (SC-29.3)
- A high priority should be conservation easements, greenbelt areas and land close to towns should be used as open space and/or environmental and wildlife areas that are available for study by school children (SC-29.2)
- Inventory, analyze and prioritize those lands most suitable for commercial or residential development, i.e. those lands adjacent to urban areas that can use existing infrastructure. (SC-31.2, SC-32.2, SC-34.1, SC-36.2, SC-38.2, SC-39.1, SC-40.2, SC-41.1, SC-42.1, SC-46.1, SC-54.1, SC-56.5, SC-64.2, SC-65.3, SC-80.5)
- Realization of greatest revenues from those lands and projects which are presently developed (SC-58.1)
- While we support pursuing conservation easements oil DNRC lands, we oppose many of the special uses pursued by the proposed alternatives. The DNRC should not commit resources to promoting development of DNRC lands. (SC-62.9)
- How will the state avoid allowing companies to build buildings that have little to no release value? How will the state avoid a situation that has occurred across the state with the former Ernst stores that have stood empty for years? (SC-68.13)
- The State should develop clear criteria for who controls, and under what circumstances they control, activities on the property. There will be inevitable confusion on parcels of property where the sublessee is controlled by a master lessee, the State and the local government. To avoid conflict the State should determine up-front who has jurisdiction and when. (SC-68.40)
- If state land occurs in an area that has little or no planning nor zoning, then the State should engage in a neighborhood planning process. However, the State could easily avoid the situation that occurred in Kalispell. Instead of doing the neighborhood plan

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itself, it should engage the help of the local government and commit itself up-front to complying with the Plan that the local government designs. If the State fails to engage in this level of community planning then it will be faced with suspicion by the community and the local government. (SC-68.41)

- The State should avoid getting involved in single-family residential development. However, there may be sections of state lands that are most appropriate for residential use. The State should develop a system whereby land that is most appropriate for single-family residential use can be traded for other lands of equal or greater value. (SC-68.49)
- Are school trust lands also to be managed for the benefit of the public? (SC-68.56)
- How will the agency ensure that the proposed development benefits the local community? (SC-78.3)
- The State has not indicated how it will allocate scarce resources in the event of competing demands. The State must establish some way to prioritize projects. For example, if there are 6 people who approach the State at the same time and want to develop parcels of land across the state, but the State does not have the ability to move forward with each proposal simultaneously, how will the State chose among projects. Some type of relative prioritization scheme should be established before this type of conflict occurs. Perhaps the State should adopt a system like the state of Washington did in which in 1968 and again in 1974, it developed a Resource Allocation Plan in which it attempted to project future uses of trust land. It designated land Current Urban, Urban 1980 and Urban 2000. Such a designation scheme would help the State prioritize properties for development, allocate scarce resources, and assist in planning and decision making. (SC-68.61)
- In contrast to the inevitable conflicts with local plans and competition with private businesses that aggressive urbanizing of state trust lands will create, DNRC can manage trust lands to benefit local governments in a number of instances. Local governments often have a difficult time finding property that is environmentally and politically suitable for such essential community purposes as water and sewer treatment plants, or for landfill or solid waste transfer stations. If a tract of state trust land is located in a suitable area, DNRC can greatly benefit a community struggling to locate a necessary facility by trading or leasing a parcel to the community. Also, one of the biggest problems in Montana communities, especially growing communities, is providing affordable housing for low and moderate income families. The shortage of affordable housing exists because of strong markets for constructing high-end housing and/or high market prices for land. On trust lands that may be suitably located, DNRC could provide a genuine public good by working with local officials and builders to devise plans and arrangements for constructing lower-cost, affordable housing. Such thoughtful, coordinated use of state trust lands for local benefit would be in stark contrast to profit-driven urban development that can thwart local objectives. (SC-81.6)
- Should DNRC initiate an urban development proposal, or should DNRC wait for a community to propose development of trust land? (SC-81.12)

Technical and/or Editorial Comments:

- The Montana Audubon and Flathead Audubon are currently negotiating a lease/license on the only state natural area. We are also aware of the back door attempt by Bill Crismore and Cary Hegreberg to eliminate the natural area. They are very closely associated with Missoula and DNRC, and this scoping looks like a smoke screen to divert attention from that issue. Maybe not, but it looks that way to

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me. Special uses on natural areas are considerably different than on cabin sites or grazing leases. (SC-13)

- I would like some specific and real examples of present and future activities on school trust lands which may or may not occur based on your EIS process. (SC-19)
- I see this process as a great opportunity to more effectively manage school trust land for the benefit of the beneficiaries and the citizens of Montana. (SC-23.1)
- I am concerned we take full advantage of the opportunity to be creative and to chart new direction for special uses. I encourage you to fully utilize our existing staff to develop creative ideas. (SC-23.2)
- There may be a need to differentiate management of trust lands vs. other state land – such as the bed of navigable waterways or administrative sites. (SC-23.4)
- I wish greater consideration would be given to compatible mixtures of uses. I don't have a good suggestion in this regard, but I do know that we manage special uses on timberland and we manage timber on special use lands. Each programmatic plan needs to recognize and accommodate other programmatic plans. They are not entities unto themselves. (SC-23.8)
- There are two primary pressures that could lead to unwise land use choices:
 - One is a continuation of pressures to develop ever dwindling land in Western Montana
 - The other is the politically based scramble to fund state programs by realigning state income sources (SC-33.1)
- Thanks for doing this (SC-28)
- Clearly state that full market value is not the only consideration when determining management plans for lands for open space, recreation, wildlife and aesthetics (SC-31.8, SC-32.8, SC-34.5, SC-38.7, SC-39.3, SC-40.7, SC-41.7, SC-44.1, SC-46.7, SC-54.6, SC-56.2, SC-57.2, SC-64.5, SC-65.7, SC-80.3)
- One of the greatest values of these lands into the future is not short-term monetary return but the open space and ecological values that are increasingly threatened by commercial uses and development. (SC-35.1)
- Special uses for wildlife habitat, open space and water and soil conservation should receive high priority consideration in the planning (SC-35.2)
- Preservation of natural, open spaces (SC-58.2)
- Would like to see more integration of policy among state, federal and private lands regarding OHV and recreational use (SC-37)
- Development of school trust lands is not always in the best interest of the community (due to increased traffic, sprawl and congestion) or the environment because of the effects on wildlife, water and air quality. (SC-39.4)
- I have three grandchildren so I hope that while you are getting fair market value for those 5.2 million acres, you consider the aesthetic value as well. Once the natural vegetation is destroyed, my grandchildren will never get to enjoy that land no matter how much money DNRC gains (SC-49)
- My concern is that in assigning a dollar value to these 5.2 million acres, the government will not take into consideration the real value which has nothing to do with money. Real value supports all of life physically, emotionally and spiritually and does not have a dollar value. Please consider the effects on at least seven generations in making decisions (SC-51)
- I am personally uneasy with the State expanding their role beyond natural resources management. In our current democratic system, capital is, for the most part, held

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and managed in the private sector. The public sector limits itself to regulation of those activities for the public health, safety and welfare. The state becomes involved in capital matters to the extent of market failure. There is no market failure demonstrated to justify provision of residential, commercial and industrial uses on trust land. Becoming involved in land development constitutes unfair competition to private sector individual taxpayers. The goal to maximize revenues could more appropriately be provided through other methods of diversification (SC-52)

- I am very concerned about changes that could be harmful to our towns and quality of life (SC-57.7)
- Balance carefully the necessity for increased revenue against the irreplaceable value of Montana's open lands – especially those situated along rivers. Not only do we need to preserve them for the sake of their natural inhabitants, but we need them for the peace and tranquility they provide for our souls. (SC-58.3)
- Define land banking, what the objectives are, and how local communities would benefit. (SC-67.7)
- FWP believes balancing the trust revenue mandate with the insurance of long-term productivity of the land is a critical concept. A clear definition of long-term is important, as it will likely drive the preferred alternative. Many special uses could generate increased income for the trust but may adversely impact the long-term health of natural resources and surrounding the state parcel. The preferred management program should benefit the trust and citizens of Montana. (SC-75.2)
- In the most general terms we understand DNRC's desire to improve the efficiency of the decision making process for Special Use Permits. It is important to AWR that any changes in the special use permit issuing process will work to conserve Montana's valuable natural resources. Fundamentally, a plan that streamlines the analysis process while simultaneously aiming to increase revenue stands to have a negative impact on these resources. At this point it is difficult to determine how the proposed management plan would make the permitting process more efficient. The preliminary proposal seemed to emphasize commercial and residential development with a strong emphasis to maximizing profit. If this is the intention of the programmatic approach, the Alliance is wholly opposed to it. (SC-63.2)
- DNRC's land use decisions will significantly and permanently impact how many communities develop in the future, and whether or not a community: 1) retains its historic character, vibrant downtowns, and local businesses, 3) maintains its quality of life, 4) efficiently uses local land, water, taxes, and other resources, and 5) insures that transportation and affordable housing are available to all of a community's residents. (SC-65.1)
- All decisions for whether or not to develop trust lands for commercial, industrial, or residential development should consider the following criteria: Proximity to existing infrastructure and urban areas; Impact on transportation congestion and access for non-automotive transportation; Cost of providing local services including but not limited to schools and busing, emergency services, and police; Impacts on water quality and quantity including both surface and ground waters; Impacts on air quality; Impacts on wildlife habitat; Existing agricultural land classification, usage, and potential agricultural use; Proximity to the wild land-urban interface and 100 and 500 year flood plains; Cumulative community impacts including community services, schools, infrastructure, traffic, etc. (SC-65.5)
- It might be helpful if the EIS includes some succinct definitions. At a minimum the following terms should be defined: land banking, trust management portfolio, portfolio

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management functions, purchase and transfer of development rights, short-term and long-term (as used on page 37 of the scoping document), subsurface water rights (page 40). (SC-68.59)

- Some examples of DNRC development activities (both successes and failures) would be instructive. (SC-68.60)
- These lands are determined to be sold or exchanged we believe the first opportunity should be to the federal government or other conservation buyer to ensure these lands remain in public ownership and the wildlife habitat, water quality and other values are protected. (SC-69.10)
- Almost invariably, when private land developers or public land managers pursue a single-minded goal of maximizing revenues or profits, the resulting development undermines, diminishes and conflicts with other community values or public interests. Owners of private property in Montana enjoy certain legal and constitutional rights, and local government struggles to balance protecting private property rights with protecting public values. However, those same legal and constitutional property rights do not attend to public lands, and the public land managing agency must be held to a higher level of sensitivity to community values and needs. It is simply wrong for a government agency, such as DNRC, to develop the public lands within its charge in any way that would injure local citizens and communities or diminish or conflict with local plans, interests and assets. (SC-81.1)
- In nearly all situations, trust lands considered for urban development will be located on the outskirts of an existing community. Generally, urban/suburban development on the outskirts of an existing community will exacerbate suburban sprawl - increasing suburban traffic, creating strip development, requiring costly extension of public services, weakening central business districts by pulling downtown business to fringe-area commercial development. All of these results adversely impact communities and local citizens. No matter how well an urban development might be designed on a tract of trust lands, if the location is improper, or is in conflict with local plans, the effect can be adverse. (SC-81.4)
- DNRC proudly points to its proposal on Section 36 north of Kalispell, but that case is a classic example of development on the fringe of a city which likely will deteriorate local values and assets. The DNRC proposal will increase the notorious traffic congestion on Highway 93 and will undermine the vitality of the Kalispell downtown, which Kalispell has worked so hard to develop and cultivate. Kalispell has an excessive amount of commercial and industrial lands allocated within the planning area, and the DNRC proposed development will only worsen that problem. Even though local officials amended the local comprehensive plans to accommodate the DNRC proposed development, the department has not obtained subdivision approval or zoning approval - claiming exemption from local zoning and subdivision regulations as a state agency. It took a lawsuit by Kalispell citizens to halt DNRC's development proposal that would conflict with and harm local community objectives. (SC-81.5)
- Local government land use planning and management in Montana not only is imperfect, often it is simply ineffective. But it works as well as it does because local elected officials - accountable to local voters - make the decisions. DNRC's unelected employees have no business making land use decisions that can so impact local communities and residents. Although the members of the State Land Board are elected on a state-wide basis, those persons do not have the commitment or accountability to local residents that local elected officials usually have. (SC-81.8)

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- Overall, the proposal for the management plan has considerable merit in several regards. Some plan is needed, some overall vision and some strategies for achieving the end for which the lands were originally given. The willingness expressed in this plan-proposal to attempt to achieve the end by working closely with local government agencies and the people of the affected area is very commendable. But I think that the particular vision that is presented in the proposal in its current form is too narrow in its focusing in on revenue and monetary return as the meaning of "support" for the schools. And I find troubling the fact that while environmental concerns are mentioned the tone of the document indicates that they will not be given much weight in fact (they will be 'considered' indeed, and if some law forces conservation or pollution control or environmentally protective measures they will of course be done, but...). I am very sorry to hear that, because I think education and the environment have a close and mutually reinforcing connection. (SC-70.10)

Appendix D:

- In Appendix D - Course Filter Process the Department outlines the process for determining classification of lands. This process needs significant clarification. Generally, we are concerned that there is not much weight given to the issue of social acceptability/ level of controversy of a given project. More specifically we have the following questions:
 - How were the relative weights established?
 - Why is Tier II property lumping "lands with long-term" potential with lands with "no potential for development"? These are, or should be, two very different outcomes.
 - Why are water rights necessarily critical for development? It seems that the best case scenario would be if a developer could hook into city water and sewer and the existing system has the capacity to service the proposal.
 - There may be qualitative issues that are important but are not factored into this analysis.
 - Why are environmental laws impacting the property considered such a huge detriment? Giving this much weight to this factor does not make sense. There could be a situation in which a parcel is located in an air shed that limits the quantity of a pollutant that can be emitted. But that does not mean that the weighting should be skewed against developing that parcel. There could easily be less polluting projects or alternative ways of designing a project that would be superior and less polluting.
 - Under "LEGALLY PERMISSIBLE" "Leases," what does it mean when it says "No lease 1; lease not precluding alternative use 2?"
 - Under "Encumbrances," what would cause the ranking of a 2 versus a 4?
 - Under "PHYSICALLY POSSIBLE" "Infrastructure" why does "more than 5 units or one commercial" rank lower than "less than 5 units or 1 commercial"? Why does developing a septic rank lower than developing a treatment plant? It might be that for a large development, developing a treatment plant might be far preferable environmentally than allowing septic. What does "sewer developable" mean? Does this mean the State can hook into city sewer? The State should analyze whether the city has the capacity to handle the additional burden.
 - Under "PHYSICALLY POSSIBLE" "Contaminated /Hazardous Sites /Landfills" it might be worth the State's effort to encourage thorough clean-up and subsequent development of contaminated sites. The State and federal governments have

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	<p>consistently encouraged brownfield developments. Perhaps this should be considered in the ranking criteria?</p> <ul style="list-style-type: none"> ▪ Under "PHYSICALLY POSSIBLE" "Water Availability" the state should consider the capacity of the city water system before it simply ranks it so low. ▪ Under "PHYSICALLY POSSIBLE" "Geologic Features" will the state also consider the variability of the water table? Will the State only analyze a snapshot in time or will it consider differences that occur between wet and dry years, spring and fall? ▪ Under "PHYSICALLY POSSIBLE" "Lease Improvement" what does the state consider improvements? ▪ Under "PHYSICALLY POSSIBLE" "Floodplains" the state should identify which floodplain is appropriate. The State should prohibit all development in the 100-year floodplain at a minimum and the 500-year floodplain in most circumstances. ▪ How does "Administrative Factors to Consider" fit into the analysis? What do positive and negative ratings mean? Is MEPA positive, negative or no impact? This entire page doesn't make sense. ▪ How does the flow chart on page 38 fit in with the flow chart on page 50? Are these processes sequential? Concurrent? Integrated? Or independent? (SC-68.42) <ul style="list-style-type: none"> • Once the State completes its analysis described in Appendix D, it should designate parcels for development and keep track of those changes in a database where the public can access the information. Washington State's plan says that it will "designate suitable trust land as urban land at intervals not greater than once every two years." The State should review designated or reclassified land periodically or as new information becomes available. Is there a system for changing a particular classification? Citizens should be allowed to petition and ask for a change in classification. The Board should then be responsible for changing the classification. (SC-68.45)
	<p>Appendix J</p> <ul style="list-style-type: none"> • Appendix J. is a dangerous matrix, as it vastly oversimplifies the location suitability of different types of land uses. It may be for illustration purposes only at this stage, but it is exactly the type of evaluation tool that can be inadvertently abused. As one example: There are many rural areas where single-family residential development would be totally inappropriate. (SC-47.7)

Comments Received from TLMD Personnel

Personnel/Department

- Diverse, well-trained (and paid) staff is capable of dealing with ongoing changes and challenges of land management
- Increase skills of our own staff
- Unifies Divisions and Bureaus
- Better staffed, better trained organization
- Next touchy/feely session at Lone Mountain Ranch – they cover per diem – i.e. we start getting paid for production/worth
- Adequate funding and FTE
- Implementation strategies and organizational skills can transfer to other programs
- DNRC provides leadership in planning and development in the state “flagship”
- Successful implementation would increase morale across the Division
- Clear direction to a “haphazard” program

Trust

- The obvious; Trust income will be increased
- Maximize Trust revenue while contributing to sustainable communities and natural resources
- Legitimizes trust mandate with public
- Increased income to the trusts. Increase land area.
- Meeting goal of the trust, making money while protecting environmental impacts
- Show me the money (Trust)
- Increase Trust assets and/or value
- Increased benefit to trust through responsible management
- Contribute to the Department meeting Trust obligation
- Balanced portfolio provides the optimal long-term revenue for the Trust

Public Relations

- Bring a positive change to community
- Having alliances with county, city, legislative, etc. officials resulting in win/win situation
- Establish relationships/presence
- Increase working relationships between staff and other agencies
- Clear vision needed for public and staff
- Divert public opposition from other programs
- Improve relations with cooperators and public
 - o Good results
 - o Make visibility of Department positive
- Allay current fears and uncertainty
- DNRC viewed as a “good neighbor”
- Public believes DNRC doing the right thing

- Public understand what special uses do and how they generate income
- Build trust and support with public and strengthen partnerships within the local community, which leads to more and better opportunities
- Bring legislature along, so legal and policy structure would actually support income generation and development
- Able to successfully implement special uses and integrate our other programs with public and internal “buy-in”

Resources

- Trust land management is compatible with community development
- Looking at management of Trust lands as Trust land managers supporting each other
- Natural resources management opportunities maybe enhanced in growth areas due to effective local planning processes
- Decrease dependence on extractive resources
- Results in better planning for, and use of trust lands
- Rape and pillage does not happen
- Efficient use of resources to minimize impact of natural resources and maximize revenue for Trust
- Still manage resource base and maintain that value
- Achieve economies of scale. Big bang for small use of land
- Move forward – pay for existing non-authorized use – capture value taken advantage of by adjacent landowners

Economy

- We capture revenue opportunities by timely development with local community development. (Example: scattered sections north of Billings)
- Promoting statewide economic development
- Reduce risk to our asset base
- Generating jobs and improving local economies
- Spin off benefits include reduced individual property tax load, with an increase in total tax revenue
- Implementation results in compounding leverage economically
- Generate money for school system, make smarter kids lower
- Lower tuition rates
- Allows us to remove bad stewards from our asset base
- Diversify our asset base, while addressing changing needs in our communities/economies
- Diversify portfolio
- If plan is successful, increase success to other programs
- Market driven asset management programs
- Fully diversified/integrated asset management portfolio (Ag, timber, minerals, special uses)

Planning

- Poor planning (short term vision) reduces or eliminates management opportunities for multiple use or supplemental income from adjacent lands
- Models used could be inaccurate and could cause more risk
- Need to spend time to consider the projects and not (just dive into it). Good planning, good implementation
- No flexibility – plan needs to be flexible and change with the times
- When planning/implementation process is being driven by politics rather than the programmatic plan
- Because of previous statement (lack of expertise) end up with poor planning and project not followed through
- We cannot move too fast. Set reasonable expectations/goals
- There are so many test to be done, that we end up not accomplishing anything

Personnel

- Lack of training that prepares us adequately for negotiation with state and non state customers
- Polarization of bureaus and division staff
- Added workload
- Generate expertise and train staff
- Not having enough training – resources, time and training to bring program along
- Need same skills, training, etc as those we deal with (realtors, developers, lessees – like Lowe's)
- People in the field can not do what they think they are\
- Lack of expertise of staffing or lack of staffing (team visions)
- We may need more Tommy B's

Department

- Charge forward without adequate staffing and end up doing a haphazard job
- We have a good plan and vision but Department of Natural Resources (DNRC) lacks the protocols, policies and laws to efficiently accomplish the goals
- Alienation and loss of cultural values, extra workload without additional money
- Difficult to implement if employees/staff don't believe in plan
- No follow-through on expectations because of limitations on expertise and resources
- Current workload is high – decrease in productivity in existing programs with shifting emphasis
- Bureau will move forward without field
- Expecting people with full time jobs already to add this work without anything falling off plate. Not enough FTE to do the job

- How do we actually implement this with current resources? We can't implement the plan
- Focus of new/current resources to develop plan, but they aren't adequate to implement it.
- Integration with other programs is a goal, but actually may further alienate Bureaus by pushing this program
- Not enough monies in the FTE's
- Forestry Division interferes with program duties
- Additional work load with no additional Field FTE
- FTE's who do this work have disciplines that are not in this field = training
- We have to have implementation training for the statewide SU plan that means everybody at all levels must participate

Resources

- That a large percentage (unknown % = 10% too large?) of forest land will be subdivided for residential use
- Effective administration strategies are not implemented resulting in environmental and economic train wrecks
- Concerned about 60/20/10/10 – current Ag land already doesn't fit well – CRP now being lost to grazing. We will rape and pillage resource to get it into 20% Ag land. Current policy conflicts with vision.
- Displacement of cultural/historical/traditional uses
- Statewide priority setting associated with the 60/20/10/10 will likely "water-down" certain programs – example: move resources from "timber" to implement 1% to 10% move in special uses, while increasing timber at the same time from 9% to 10%
- Changing basic mission from natural resource management to real development
- With development comes a cost that may not be cost effective. ("Cost may outweigh benefit".)
- Lack of specialist input may require the special uses to contract for wildlife, soils, etc...currently contracting fund available.
- There is no money to develop those parcels
- We get hoodwinked with conservation
- Potential for competition with commercial, private sector and lessee's for high value parcels
- Easements and can not manage our lands in the future or have management limitations

Public/Community Relations

- The vision is significantly altered or squelched as a result of political influence
- Failure to maintain public support resulting in the demise of the program
- Agency buy-in and public perception
- High expectations from public and internally to produce results where we don't have the necessary expertise

- Legislative reluctance – lack of acceptance from legislature
- Not bringing everyone along with it – County Commissioners, legislators, resulting in conflict and not meeting their goals
- Potential to create information culture based on haves and have nots
- No buy-in by special interest groups
- Require a huge public relationship effort that includes local government, special interest groups, and all players

Economy/Trust

- Future trust land managers are left with economic and environmental liabilities
- Alienation of traditional users of State Trust land
- Foregoing future revenue producing opportunities
- Reduction of short/long term revenue generation
- Not to fulfill mandate to generate maximum Trust revenue
- Solve the funding concerns of implementing this
- By going forward with the S.U vision we will increase the social political negative effect on maximum asset value

Training

- Adequate training. “I want to know what I’m supposed to do and how to do it”.
- Train key staff in negotiation skills
- Increase people’s skills and training with commitment to implement by Agency
- Provide appropriate training to maintain corporate culture

Public Relations

- Presentations of draft plans at MACO or similar organization to generate support
- Identify a relatively few low risk project and closely with communities to develop common goals to build confidence and partnerships
- Get buy-in – build constituency base with community leaders, legislators, etc
- Involve legislatures and communities at earliest opportunities
- Using public involvement (MEPA) process to make decisions regarding actions made by the Department will show that the public is choosing final decisions about state land
- Establish communication/involvement mechanisms with local government entities
- Partner with other agencies to meet their goals and ours
- Involve local community at all levels
- Work closely with local communities to develop common goals
- A good public information and participation program
- Educate public as to what we do

Planning

- Goals and objectives that fit allocated FTE and dollars
- A good inventory of current Trust assets and the value or constraints for management.
- Look at what's on our plate now and see if makes sense to keep doing or what to do to change that.
- Seek help from other states and learn from their success/failure
- Develop an asset management plan
- Investigate other successes
- Plan flexible enough to accommodate big picture issues, planning future and implement changes. We can be proactive
- *Plan that recognizes; raises visibility and if it's positive result could be good*
- *Improve relationships with cooperators, public, achieved positive employer growth*
- *Plan legitimizes land, public looks at state*
- "Out of box" thinking – flexibility in programs and thinking
- Inclusive process: 1) public; 2) local government
- Clearly defined outcomes, goals, objectives and rewards
- Establish economic successes as a base to build confidence as a Department, create partnerships and dissolve distrust
- Identify by various strategies that reduce administrating workload, provide opportunities to leverage one development to the next development
- Make our processes as transparent as possible to all (public, employees, politicians and wizards).
- Provide real guidance on how to implement the plan "on the ground".
- The strategy would identify needs and prioritize projects
- We are creative and innovative in planning and implementing "high end" developments
- Incorporate and exploit our investment in technology in our planning and implementation effort

Communication

- Effective administration communication (policies, etc) and personal communication (respect, listen, value, etc.)
- Good public participation process/ internal participation
- More face-to-face contact with LGU's (Planning offices, County Commissions, councils, etc)
- Solicit input from affected parties and track our responses
- Build consensus/support among all the players
- Good relationships/communications with all (Agencies, Interested Parties)
- Keep it simple!!!!
- Improve communication – empower field
- Establish communication/involvement mechanisms with local government entities

- Educate (Internal/External)
- Need to brief others
- Keep all interested parties in the loop at all phases
- The strategies that will foster the best outcomes would be information gathering and sharing with both internal and publics to create buy in and allow the process to move forward with trust resistance
- Create an information distribution system to get information to field and field information
- Communication with players, utilized best trained personnel for the job

Project Management

- Good project selection procedure/criteria
- Well thought out implementation tools
- Well thought out projections/expectations
- Prior to release of final E.I.S. develop a system for distribution and implementation of the E.I. S. to include mandatory orientation and training to those working in the program
- Prioritize projects
- Monitor implementation – working? Management expectations? Adjust
- Bring people on board with the proper expertise and experience
- Seek partnerships with developers both for projects and on a political basis
- Implementation plan will need to be completed enough to indicate “Go/No Go” before completion of PEIS
- Defined goals and ideas of projects of public prior to identify goals and ideas of Department
- Timelines, funding and Task Force in place to carry out plan
- First project have big probability of success
- Get in “buckle-up/shut-up” and learn from mistakes
- Early identification of projects that have a high chance of success
- External resources – consultants
- Develop reasonable goals/expectations based on current ideas and value that set the foundation for us to succeed. The expectations are the key to success and they must be developed at a small scale considering local values. Once developed, intense promotion of these expectations must be conveyed to public, other agencies, XXXX, legislators, etc prior to implementation. Once committed, follow through of these must be completed.
- Diligent evaluations of proposed exchanges that logically show conclusion to Helena

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Funding

- Increase in qualified FTE or funding for contracted services
- Pay people what they're worth
- Take advantage of good deals

- Funding mechanism/strategy developed from receipts
- Obtain funding
- Source of money for improvements
- Capture seed money for implementation emphasizing past success
- Try to get ahead of the curve and have adequate funding to take advantage of opportunities before other capitalize on the opportunity
- Have Bud lobby legislature for more money
- Have Bud lobby national legislature for money for specific programs available.
- Encourage public to lobby local legislators to support program with money
- Get ceiling XXXX raised to accommodate collecting a “special User XXX? Fee” to foster development of priority infrastructure. Go into next legislative session and request one million dollars seed money to kick it off. (Justify by successes, Lewis and Clark succss; Spring, Prairie and bypass; Hampton Inn in Great Falls, sale of lots in Billings, etc.)

Policy

- Develop agency policy and procedures that facilitate proposed actions but realize the need to retain flexibility
- Policy changes
- Supporting legislation, rules, policies
- Programmatic plan, policies and legislative support in place which support our vision
- Align: policies/procedures/rules/regulations/laws
- Policies and procedures in place before beginning
- Bureau Chiefs/Division Administrator and Director continue to identify policy evolution need and legislative support to meet objectives

Personnel

- Be flexible/adaptable/open-minded
- Have fun
- Attitude changes
- Attract these people from the private sector with comparable compensation
- Good honest communication within the organization with no hidden agenda

Management/Organizational

- Program Managers, Bureau Chiefs and Area Managers must involve affected people in their management decisions
- Visions must be supported by realistic implementation plans and adjusted to match approval and funding
- We have organizational flexibility to respond to markets
- Need core staff of specialists
- Dedicated discipline staffing

- Convert from an “all hands meeting” to an “all hands agency”
- Include strategy for orientation of new employees specific to the plan
- Open to all possibilities
- Contract private services to reduce workload
- Clear vision and direction
- Break down global vision and short-term goals start slowly
- All on the same page, continuity (state wide important)
- Provide incentives to other Bureaus for support
- Core staffing of specialists
- Dedicated staffing to minimize conflicting workload
- Administrative support of a common vision that clearly articulate a team or partnership relationship towards achieving objective for special uses
- We trust and respect each and act accordingly
- We foster a culture of appropriate risk taking
- All field staff to be committed to leadership decisions

Resources/Trust

- Each land office has technological support to get it done right
- Use money from the sale of conservation easements to purchase Plum Creek or other land
- Sole status vs. exchange status
- Address how to determine whether to sell, lease, easement
- Have we identified transitional lands?
- Evaluate deferred exchange lands with access, whether we have it or not
- Identify relatively few easily developed trusts (low risk)
- Enlist land trusts to run and fund projects that are mutually beneficial
- Availability of a source of money to improve entitlements on property

APPENDIX A-2

DEIS Public Notice Information

DEIS Mailing List		
Fred Chouinard Absarokee, MT 59001	James Baldwin Alberton, MT 59820	Dick Crackford Anaconda, MT 59711
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Michael O'Rourke Anaconda, MT 59711	KANA / KGLM Anaconda, MT 59711	Susan Blume Anaconda, MT 59711
Louis Headley Arlee, MT 59821	CAROL MOSHER AUGUSTA, MT 59410	Russ Bean Augusta Public Schools
Paul Huber Bainville, MT 59212	James Stanton Baker, MT 59313	Marlene Ferrel Baker, MT 59313
KFLN Baker, MT 59313	Roger Schmidt Baker, MT 59313-1134	KAREN DAVIDSON BASIN, MT 59631
Barbara Thronson Belfry, MT 59008	Brad Murfitt Belgrade, Mt 59714	Debra Youngberg Belgrade, MT 59714
Harry Erickson Belgrade, MT 59714	Jason Karp Belgrade, MT 59714	KGVW Belgrade, MT 59714
Calvin Johnson Belt Public Schools Belt, MT 59412	Burt & Mary Sugarman Beverly Hills, CA 90210	Sharon Bergman Big Arm, MT 59910
Don Schwennesen BIG FORK, MT 59911	William Edwards Big Sandy Public Schls Big Sandy, MT 59520	Alvin Buerkle Sweet Grass County HS

Dan Lechefsky Billings, MT 59107-6800	Daniel Miles Billings, MT 59105	Dave & Ruth Torrence Billings, MT 59101
Dennis Espeland Billings, MT 59101	Dick Spalding Billings, MT 59102	Doug Habermann Billings, MT 59105
Ed Zabrocki Yellowstone Academy Elem Billings, MT 59106	Eileen Johnson Lockwood Elementary Billings, MT 59101	Gail Kenson Billings, MT 59101- 1156
Glenn Rickett Billings, MT 59103-7224	James Phelps Billings, MT 59102-2406	Jeff Bollman Billings, MT 591011156
Jo Swain Billings Public Schools Billings, MT 59101	Cal Cumin, AICP Billings, MT 59102	John Gibson Billings, MT 59102
John Hodnick Billings, MT 59101	Kerwin Jensen Billings, MT 59101-1156	Larry Hamilton Billings, MT 59107- 6800
Marion Dozier Billings, MT 59101-1156	Billings Public Library Billings, MT 59101	Billings Rod & Gun Club Billings, MT 59012
Lisa Mascho Whitefish, MT 59937	Thomas Harding Whitefish, MT 59937	High Plains News Service Billings, MT 59101
KBKO Billings, MT 59103	KDWG / KCTR Billings, MT 59103	KEMC Billings, MT 59101
KGHL / KIDX Billings, MT 59102	KHMT / KSCI TV Billings, MT 59104	KOUS-TV/KSVI-TV Billings, MT 59104
Blackfeet Tribal Business Council Browning, MT 59417	Glacier Reporter Browning, MT 59417	Steve Smyth Browning Public Schools
Bill Heasley Butte, MT 59702	Bob Carlson Butte, MT 59701	Bob Kelly Butte, MT 59701
Connie Ternes-Daniels Butte, MT 59701	Dori Skrukrud Butte, MT 59701-9256	Evan Barrett Butte, MT 59703
Jack Atcheson Butte, MT 59701	Jack Jones Butte, MT 59701	Jerry House Whitefish Public Schools
Jim Smitham Butte, MT 59701	John Moodry Butte, MT 59701	Jon Sesso Butte, MT 59701- 9256

Kate Stetzner Butte Public Schools Butte, MT 59701	Mike & Hia Chapin Butte, MT 59701	KBOW / KOPR Butte, MT 59702
KMSM Montana Tech Butte, MT 59701	KTVM TV Butte, MT 59701	KXLTV Butte, MT 59701
KXTL / KQUY / KAAR Butte, MT 59701	Montana Standard Butte, MT 59701	Harold McDowell Whitefish, MT 59937
Rick Cannada Butte, MT 59703-0342	Rody Holman Butte, MT 59701	
Steve Antonioli Butte, MT 59701	Vince Fischer Butte, MT 59701	Mineral Management Division Dept. of the Interior
	Kenneth Kelly Cascade Public Schools Cascade, MT 59421	PATRICK BOYD STADLEY CASCADE, MT
Doug Ardiana Charlo Public Schools Charlo, MT 59824	Brian Barrows Chester Public Schools Chester, MT 59522	Krystyna Cole Chester, MT 59522
Carol Elliot Chinook, MT 59523	Jay Eslick Chinook Public Schools Chinook, MT 59523	Candy Richter Choteau, MT 59422
Ed Peterson Choteau Public Schools Choteau, MT 59422		Gwyn Andersen Courthouse Choteau, MT 59422
Earle Schafer Circle Public Schools Circle, MT 59215	Janet McCabe Circle, MT 59215	John McGee Montana City Elementary
Robert Klein Clancy Elementary Clancy, MT 59634	Warren Kellogg Clancy, MT 59634	Bill Woodford Clinton Elementary Clinton, MT 59825
Catherine Ream Clinton, MT 59825	Jim Nygaard Colstrip Public Schools Colstrip, MT 59323	Kathryn Chioutsis Colstrip, MT 59323
Kent Wood Colstrip, MT 59323	Barry Roose Columbia Falls, MT 59912	Bob Boeh Columbia Falls, MT 59912
Brian Kennedy Columbia Falls, MT 59912	clarence taber columbia falls, mt 59912	Dan Blomquist Columbia Falls, MT 59912
Dean Sturz Columbia Falls, MT 59912	Floyd McCubbins Columbia Falls, MT 59912- 1847	Harold Hale Columbia Falls, MT 59912

James Kranz Columbia Falls, MT 59912	Greg Waldrop Whitefish, MT 59937	Gary Scott Huntley Project K-12 Schls
Kathy Shaver Columbia Falls, MT 59912	Larry Wilson Flathead Basin Commission Columbia Falls, MT 59912	Larry Youmans Columbia Falls, MT 59912
Lorrie Woods Columbia Falls, MT 59912	Malcolm Thompson RBM Lumber Columbia Falls, MT 59912	Michael Nicosia Columbia Falls Public Schls
Rem Kohrt Columbia Falls, MT 59912	Ronald Buentemeier Columbia Falls, MT 59912	
Tom Tintinger Columbia Falls, MT 59912	Barbara Campbell Columbus, MT 59019	Bruce "Bo" Bowman Columbus, MT 59019-0881
Dr Sandra Scott Noland Columbus Public Schools Columbus, MT 59019-7165	Linda Lang Columbus, MT 59019-0881	Nathan Kauffman Condon, MT 59826
Rod Ash Condon, MT 59826	Hazel Jones Palomino Courthouse Conrad, MT 59425	Kurt Hilyard Conrad Public Schools
Daniel Sybrant Corvallis K-12 Schools Corvallis, MT 59828	Corvallis Public Schools Corvallis, MT 59828	Roger & Olive Robison Corvallis, MT 59828
Stuart Brandborg Corvallis, MT 59828	Toddy Perryman Corvallis, MT 59828	Crow Tribal Council Crow Agency, MT 59022
Crow Tribal News Crow Agency, MT 59022	Larry Crowder Culbertson Public Schools Culbertson, MT 59218	David Huether Custer K-12 Schools Custer, MT 59024
Darryl Omsberg Cut Bank, MT 59427	Dennis Roseleip Cut Bank Public Schools Cut Bank, MT 59427	GAIN Cut Bank, MT 59427
Jack Eggensperger Darby K-12 Schools Darby, MT 59829		Delbert Hawkins Dayton, MT 59914
William Dwelle Dayton, MT 59914	Anthony Colter Deer Lodge, MT 59722	Joe Brott Powell County High School
Jules Waber Deer Lodge, MT 59722	Deer Lodge Schools Deer Lodge, MT 59722	KDRG North of Deer Lodge Deer Lodge, MT
Louisiana-Pacific Corporation Deer Lodge, MT 59722	Tom Cotton Deer Lodge Elementary Deer Lodge, MT 59722	Gladys Martinell Dell, MT 59724

George Ihly Denton Public Schools Denton, MT 59430	Brian Pilcher Dillon, MT 59725-3598	Dottie Donovan Dillon, MT 59725-2799
Dr Kenneth Piippo Beaverhead Co High School Dillon, MT 59725	Jack Kirkley Dillon, MT 59725	Jim Bramer Dillon, MT 59725-3572
Jim Hagenbarth Dillon, MT 59725	Joe Helle Dillon, MT 59725	John Bloomquist Dillon, MT 59725
Karen Mitchell 11 Cloudrest Dillon, MT 59725	Larry Blades Dillon Elementary Dillon, MT 59725	Larry Laknar Dillon, MT 59725
Beaverhead Co. Resource Use Committee Dillon, MT 59725	Dillon Public Library Dillon, MT 59725	Dwight Harrison Ranch Co. Dillon, MT 59725
KDBM Dillon, MT 59725	Rick Hartz Dillon, MT 597252799	Robert Holt Dillon, MT 59725
Robert Sawyer Dillon, MT 59725	Harold Young Dixon, MT 59831	Harold W. Young, AICP Dixon, MT 59831
Dollyann Willcutt Dodson Public Schools Dodson, MT 59524	John Cheek Drummond Public Schools Drummond, MT 59832	Ward Fifield Dutton K-12 Schools Dutton, MT 59433-
Thomas Lockyer East Helena Elementary East Helena, MT 59635	Carole Carey Clerk of District Court Ekalaka, MT 59324	Jule Walker Carter County High School
Jule Walker Ekalaka Elementary Ekalaka, MT 59324	Travis Brazill Elliston, MT 59728	Douglas Walsh Ennis K-12 Schools Ennis, MT 59729
kelly lu ennis, mt 59729	John Hossack Eureka, MT 59917	Margaret Brockmann Eureka, MT 59917
Terry Vanderpan Eureka Public Schools Eureka, MT 59917	Wayne Finch Eureka, MT 59917	Thorn Liechty Evaro, MT 59802
Mark Anderson Fairfield Public Schools Fairfield, MT 59436	Jim Germann Fairview Public Schools Fairview, MT 59221	Jim Riedlinger Flaxville K-12 Schools
Chuck Sperry Florence, MT 59833	Harry Lafriniere Florence, MT 59833	John Mortenson Florence, MT 59833
Steve Gaub Florence-Carlton K-12 Schls Florence, MT 59833	B Todd Taylor Forsyth Public Schools Forsyth, MT 59327	Daniel Watson Forsyth, MT 59327

KIKC Forsyth, MT 59327	Sharyn Thomas Forsyth, MT 59327	Carl Somers Fort Benton Public Schools
Larry Stollfuss Fort Benton, MT 59442	Terry Albrecht Fort Shaw, MT 59443	Helen Minick Frazer Public Schools Frazer, MT 59225
Gerald Pease Frenchtown K-12 Schools Frenchtown, MT 59834	Jean Ferguson Frenchtown, MT 59834	Roger Britton Froid Public Schools Froid, MT 59226
Allan Anderson Fromberg Public Schools Fromberg, MT 59029	Kim DeBruycker Gallatin Gateway Elem Gallatin Gateway, MT	Pat Ingraham Ophir Elementary Gallatin Gateway,
Lynn Mavencamp Gardiner Public Schools Gardiner, MT 59030	Leo Lorenz Jr Geraldine Public Schools Geraldine, MT 59446	Dennis Gerke Geyser Public Schools
Jim Palmer Kremlin-Gildford Pub Schls Gildford, MT 59525	Carlo Porteen Glasgow, MT 59230-0226	Edith Scott Glasgow, MT 59230
Glen Monson Glasgow K-12 Schools Glasgow, MT 59230		KLTZ / KLAN Glasgow, MT 59230
E. Smith Glen, MT 59732	Monty Rathie Glen, MT 597320042	Martha Young Glendive, MT 59330- 1616
KGLE Glendive, MT 59330	KXGN / KDZN Glendive, MT 59330	Richard Cameron Glendive Public Schools
Richard Crouch Glendive, MT 59330	Garret Franks Grass Range Public Schools Grass Range, MT 59032	AART DOLMAN GREAT FALLS, MT 59401
Alice Miller Great Falls, MT 59406		ART LOENDORF GREAT FALLS, MT 59403-2447
Ben Rangel Great Falls, MT 59403-5021	BILL THOMAS GREAT FALLS, MT 59406	Bill Walters Great Falls, MT 59403-5021
CHRIS EBELING GREAT FALLS, MT 59404	D. STARSHINE GREAT FALLS, MT 59405	DEE GOSS GREAT FALLS, MT 59404
Dr W Bryan Dunn Great Falls Public Schools Great Falls, MT 59403	GERRY JENNINGS GREAT FALLS, MT 59404	HELEN COMER GREAT FALLS, MT 59404
J. David Slovak Great Falls, MT 59404	James Freeman Great Falls, MT 59404	JENNY YONEJI GREAT FALLS, MT 59404

Jess Anderson Room 108 Courthouse Annex Great Falls, MT 59401	Jim McDermand Great Falls, MT 59405-3629	Jim Yeagley Great Falls, MT 59401
John Nerud Great Falls, MT 59404	Kathleen McMahon Great Falls, MT 59404	LON HOLZHEUMIER GREAT FALLS, MT
MARJORIE & DAVE MALONEY GREAT FALLS, MT 59404	MARK GOOD GREAT FALLS, MT 59401	MICHAEL HENNESSY GREAT FALLS, MT
Mike Babcock Great Falls, MT 59403	MIKE PARKER GREAT FALLS, MT 59404	Cascade County Weed Mgmt. District Great Falls, MT
James Welsh Whitefish, MT 59937	KEIN / KLFM Great Falls, MT 59403	KFBB TV Great Falls, MT 59403
KMON / KLFM Great Falls, MT 59403	KQDI Great Falls, MT 59403	KRTV Great Falls, MT 59403
KTGF TV Great Falls, MT 59405	KXGF / KAAK Great Falls, MT 59403	Little Shell Tribe of Chippewa Indians
Jan Metzmaker Whitefish, MT 59937	Brian Beal Virginia City, MT 59755	USFS Lewis & Clark National Forest Great Falls, MT
Pam Parsons Great Falls, MT 59405	Ralph Pomnichowski Great Falls, MT 59401	RANDY GRAY Great Falls, MT 59404
RICHARD HOPKINS GREAT FALLS, MT 59404	Rick Evans Great Falls, MT 59403	Robert Gleissner Great Falls, MT 59403-5021
Robert Horne, Jr., AICP Great Falls, MT 59403-5021	Steve Taylor Great Falls, MT 59405	Stuart LEWIN Great Falls, MT 59401
Susan Colvin Great Falls, MT 59404	Tim Ryan Great Falls, MT 59403	WADE CROUCH GREAT FALLS, MT 59404
Hank Goetz Greenough, MT 59836		Chris Clancy Hamilton, MT 59840
David Majors Hamilton, MT 59840-0238	Don Klepper Courthouse Hamilton, MT 59840	Doris Milner Hamilton, MT 59840
Doug Soehren Hamilton, MT 59840	Duane Lyons Hamilton K-12 Schools Hamilton, MT 59840	Emil Erhardt Hamilton, MT 59840

Ira Holt Hamilton, MT 59840	Jim Miller Hamilton, MT 59840	Mrs. Mary Beer Hamilton, MT 59840
Orville Getz Victor K-12 Schools Victor, MT 59875	KLYQ / KBMG Hamilton, MT 59840	Ravalli County Hamilton, MT 59840
Pat & Bruce Tucker & Weide Hamilton, MT 59840	Stephen Kelly Hamilton, MT 59840	Steve Kenley Hamilton, MT 59840
Vicky Bohlig Hamilton, MT 59840	Albert Peterson Hardin Public Schools Hardin, MT 59034-9707	Gary Hickey Hardin, MT 59034
KHDN Hardin, MT 59034	Don Bidwell Harlem Public Schools Harlem, MT 59526-0339	Fort Belknap Newsletter Harlem, MT 59526
David Lloyd Harlowton Public Schools Harlowton, MT 59036	Sandra Woldstad Harlowton, MT 59036	Susan Beley Harlowton, MT 59036
Fern Harmon Harrison, MT 59735	Glen Johnson Harrison Public Schools Harrison, MT 59735	Clay Vincent Havre, MT 59501- 3654
Tom Kaiserski Columbus, MT 59019-0881	Kirk Miller Havre Public Schools Havre, MT 59501	Merriel Johnson Havre, MT 59501
KOJM / KPQX Havre, MT 59501	KXEI Havre, MT 59501	Paul Tuss Havre, MT 59501
Shirley Isbell Havre, MT 59501	Terry Turner Havre, MT 59501	Terrence Collinson Hays-Lodge Pole K- 12 Schools
Bruce Morrison Heart Butte Public Schools Heart Butte, MT 59448	Aimee Grmoljez Helena, MT 59620-0801	LaRue Moorhouse Victor, MT 59875
Barbra Mullin Helena, MT 59620-0201	Belinda Waters Helena, MT 59623	Beth Furbush Helena, MT 59620- 1706
Beth & Tim Baker Helena, MT 59601		Bob Brown Helena, MT 59620- 2801
Bob Habeck 1520 East 6th Avenue Helena, MT 59620	BOB KIESLING HELENA, MT 59601	Bob Vogel Helena, MT 59601
Bonnie Heidel Helena, MT 59620-1800	Judi Osborn Virginia City, MT 59755	Rand Bradley Twin Bridges K-12 Schools

Carolyn Adams Helena, MT 59601-5133	Cary Hegreberg Helena, MT 59601	Cathy Burwell Helena, MT 59601
Charles Canterbury Helena, MT 59602	Clint Blackwood Helena, MT 59620	Craig Sharpe Helena, MT 59624
D. Wilson Helena, MT 59601	Dan Whyte Helena, MT 59620-2801	Daniel M. Norderud, AICP Helena, MT 59604-
David Cole Helena, MT 59602	David Fenner Helena, MT 59624	Don Allen Helena, MT 59624
Dr Bruce Messinger Helena Public Schools Helena, MT 59601	ED TINSLEY Helena, MT 59604-4009	Gary Peterson Helena, MT 59601
Wesley Young Frontier Elementary Wolf Point, MT 59201	GAYLE SHIRLEY HELENA, MT 59602	Georgeanne Paul Helena, MT 59601
Greg Haegele Helena, MT 59604-4009	Guy Youngblood Helena, MT 59602	Harley Harris Helena, MT 59620- 1401
Harold Fossum Helena, MT 59623	Harold Stepper Helena, MT 59620-0201	Heather Mumby Helena, MT 59601
Jamie Williams Helena, MT 59601	Gary Sloan Whitefish, MT 59937	Jean Johnson Helena, MT 59624
Jeff Hagener Helena, MT 59620-0701	Jeff Hindoién Helena, MT 59624-1715	Jerry Grebenc Helena, MT 59624
Jim Jensen Helena, MT 59624	Jim McGowan Helena, MT 59604	John Baucus Helena, MT 59624
John Koerth Helena, MT 59601	John Morrison Helena, MT 59604-4009	Dave Russell Whitefish, MT 59937
Julie Lapeyre Helena, MT 59620-0801	Chris Miller Whitefish, MT 59937	Kathy Macefield Helena, MT 59623
Pat Stennes Roosevelt Co Courthouse Wolf Point, MT 59201	Kemper McMaster Helena, MT 59626	Ken Knudson Helena, MT 59604
Ben Cohen Whitefish, MT 59937-1657	Linda Reed Helena, MT 59624	Linda Stoll Helena, MT

Lloyd Davison Helena, MT 59624	Lynn Robson Helena, MT 59601	Marga Lincoln Helena, MT 59601
Margaret Beer Helena, MT 59620-1800	Margaret Morgan Helena, MT 59601	Mark Simonich Helena, MT 59620
Mary Reynolds Helena, MT 59620-1705	Melissa Shannon Helena, MT 59620-2501	Michael Barros Helena, MT 59623
Michael McHugh Helena, MT 59602	Mike McGrath Helena, MT 59620-1401	Mike Volesky Helena, MT 59601
Meagher County Weed Program White Sulphur Springs, MT 59645	Governor's Office Helena, MT 59620-0801	Charles McCarty Whitefish, MT 59937
KBLL Helena, MT 59601	KCAP / KZMT Helena, MT 59601	KFBB TV Helena, MT 59620
KHKR Helena, MT 59604	KMTF TV Helena, MT 59601	KMTX Helena, MT 59624
KTVH TV Helena, MT 59604	D. L. Blank Whitefish, MT 59937-0953	Ferne Cohen Whitefish, MT 59937
Montana State Library Helena, MT 59620-1800	Ed Prach Whitefish, MT 59937	Nancy Sweeney Helena, MT 59624
PAUL EDWARDS HELENA, MT 59601	Paul Georgeanne Helena, MT 59601	Paul Putz Helena, MT 59620- 1202
Paul Sihler Helena, MT 59620-0701	Peggy Trenk Helena, MT 59903	Rebecca Watson Helena, MT 59624- 1715
Andrew Holmlund Wolf Point Public Schools Wolf Point, MT 59201	Richard Southwick Helena, MT 59620	Robert Rasmussen HELENA, MT 59601
Robert Rasmussen Helena, MT 59602	Sara Toubman Helena, MT 59601	Sharon Haugen Helena, MT 59624
Stan Frasier Helena, MT 59604	Stephen Hendricks Helena, MT 59601	Steve Potts Helena, MT 59626- 0096
Linda Twitchell Wolf Point, MT 59201	Steve Tralles Helena, MT 59620-0901	Susan Epstein Helena, MT 59601

Craig Mohr Whitefish, MT 59937	Todd Everts Helena, MT 59620-1704	Tom Erdie Helena, MT 59602
Warren Morehouse Helena, MT 59624	Webb Brown Helena, MT 59624	Wes Synness Helena, MT 59601
WILL BOLAND HELENA, MT 59601	Dennis Williams Highwood Public Schools Highwood, MT 59450	Don Johnson Hinsdale Public Schools
John Baule Hobson K-12 Schools Hobson, MT 59452	Ken Avison Hot Springs Public Schools Hot Springs, MT 59845	Joan Schumaker GEM Center Houghton, MI
Michael Ware Hungry Horse, MT 59912	Canyon Coalition Hungry Horse, MT 59919	People for Elk Hungry Horse, MT 59919-9011
Sheila Keller Hungry Horse, MT 59912	Greg Munther Huson, MT 59846	Barbara Parker Hysham K-12 Schools
Kathleen Thomas Hysham, MT 59038	Adena Cook Blue Ribbon Coalition Idaho Falls, ID 83202-1945	Jerry Weber Joliet, MT 59041
Les Cabot Joliet Public Schools Joliet, MT 59041	Michael Mikota J-I K-12 Schools Joplin, MT 59531	Karla Christensen Jordan, MT 59337
Paul Felter Jordan Public Schools Jordan, MT 59337	Connie Adams Judith Gap Public Schools Judith Gap, MT 59453	
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Brad Gestring Kalispell, MT 59901	Brent Mitchell Kalispell, MT 59901	Bruce Measure Kalispell, MT 59901
Cecil Noble Kalispell, MT 59901	Patricia Zinda Wibaux, MT 59353	Stephanie Downs Winnett, MT 59087
Larry Helvik Wibaux K-12 Schools Wibaux, MT 59353	Elna Darrow Kalispell, MT 59901	Monte Clemow Wisdom, MT 59736
Roger Armstrong White Sulphur Springs Pub Schools	Gerald Cole Kalispell, MT 59901	Harry Amend Kalispell Public Schools
James Bray Kalispell, MT 59901-2776	Jane Adams Kalispell, MT 59901	Jeanne & Dan Olson Kalispell, MT 59901

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John Babcock Cayuse Prairie Elementary Kalispell, MT 59901	John Lipinski Kalispell, MT 599017340	Jon Heberling Kalispell, MT 59901
Bob Brown Whitefish, MT 59937	Keith Olson Kalispell, MT 59901	Lex Blood Kalispell, MT 59901
	marty MICHELSON kalispell, mt 59937	Jim Richard White Sulphur Springs, MT 59645
NA Jobe Kalispell, MT 59903	Judi Osborn Virginia City, MT 59755	Josh Middleton Valier Public Schools Valier, MT 59486
Flathead National Forest Kalispell, MT 59901	KAJ TV Kalispell, MT 59901	Kalispell Public Library Kalispell, MT 59901
KALS Kalispell, MT 59904	KCFW TV Kalispell, MT 59901	KGEZ Kalispell, MT 59903
KOFI Kalispell, MT 59903	Jim McLaughlin Vaughn Elementary Vaughn, MT 59487	Nancy Warren Kalispell, MT 59901
Patrick Heffernan Kalispell, MT 59903	Paul Jenkins Helena Flats Elementary Kalispell, MT 59901	Randall Ogle Kalispell, MT 59901
Rex Boller Kalispell, MT 59903	Robert Cole Kalispell, MT 59901	Robert Wilson Kalispell, MT 59901
Roland Frey Kalispell, MT 59904	Steve Barrett Kalispell, MT 59901	Steve Funke Kalispell, MT 59901
Dan Grabowska Whitewater K-12 Schools Whitewater, MT 59544-0046	William Yeats Whitefish, MT 59937	Todd Fiske West Valley Elementary
Warren Illi Kalispell, MT 59901	Wayne Worthington Kalispell, MT 59901	William Eystad Kalispell, MT 59901
William Morgan Kalispell, MT 59901	DAVID & CAROLYN WALSH KILA, MT 59920	Bill Dietz Whitehall Public Schools

Jay Wentz LaJolla, CA 92037	Tynie Mader Lambert Public Schools Lambert, MT 59243	Michael Williams Lame Deer Public Schools
Newsletter Lame Deer, MT 59043	Northern Cheyenne Tribal Council Lame Deer, MT 59043	Al McMilin Laurel Public Schools
	Loren Osler Lavina K-12 Schools Lavina, MT 59046	Conrad Robertson Lewistown Public Schools
Dan Cantrell Lewistown, MT 59457	Dori Jacobs Lewistown, MT 59457-0900	Todd Breitenfeldt Whitehall, MT 59759
Duane Ferdinand Lewistown, MT 59457	Ed Stoots Lewistown, MT 59457	KXLO / KLCM Lewistown, MT 59457
Shirley Barrick Lewistown, MT 59457	Harvey Fredericksen Libby, MT 59923	Joel Nelson Libby, MT 59923
John McBride Libby, MT 59923	K W Maki Libby K-12 Schools Libby, MT 59923	
KLCB / KTNV Libby, MT 59923	MJB Contracting, Inc. Libby, MT 59923	MSU Lincoln County Extension Libby, MT 59923
Renata Schroepel Libby, MT 59923	Ron Higgins Libby, MT 59923	Teddy Beebe Libby, MT 59923
Russ McKenna Lima K-12 Schools Lima, MT 59739	Bob Bushnell Lincoln, MT 59639	Bruce Youngquist Lincoln K-12 Schools
Lory Stevenson Lincoln, MT 59639	Beverly Yager Livingston, MT 59047-9611	Jon Ulen Winnett K-12 Schools
Jacqueline Robbins Livingston, MT 59407	Jim Barrett Livingston, MT 59047	Jim Plum Livingston, MT 59047
Jim Woodhull Livingston, MT 59047	Mary Sarver Livingston, MT 59047	KPRK Livingston, MT 59047
Livingston Enterprise Livingston, MT 59047	Verne Beffert Livingston Public Schools Livingston, MT 59047	Tim Dunn Lodge Grass Public Schools
Anne Maclay Lolo, MT 59847	Elmer Myers Lolo Elementary Lolo, MT 59847	John Swope Lone Pine, MT 59848

High Plains Warrior Malmstrom AFB, MT 59402	Anne Boothe Malta, MT 59538	Gary Baden Malta, MT 59538
KMMR Malta, MT 59538	William Parker Malta K-12 Schools Malta, MT 59538	William Parker Malta, MT 59538
Ramona Stout Manhattan Public Schools Manhattan, MT 59741-0425	Donald Julian Martin City, MT 59926-0224	Frank Loehding Medicine Lake K-12 Schools
J Richard Thomas Melstone Public Schools Melstone, MT 59054	Ellen Zook Miles City, MT 59301	Jack Regan Miles City Public Schools
John Marks Miles City, MT 59301-0910	Joyce Woffard White Sulphur Sprgs, MT 59645	KATL Miles City, MT 59301
KMTA / KMCM Miles City, MT 59301	Miles City Public Library Miles City, MT 59301	Gary Matson Milltown, MT 59851- 0308
Alan McQuillan University of Montana Missoula, MT 59812	Becky Richards University of Montana Missoula, MT 59812	Bert Kraft Missoula, MT 59802
Bill Otten Missoula, MT 59802	Bob Logan University of Montana Missoula, MT 59812	Bob Storer Missoula, MT 59804
	Bruce Bugbee Missoula, MT 59803-1430	Charlie Patton Missoula, MT 59801
Charlotte & Jack Kress MISSOULA, MT 59802	Bruce Bugbee Missoula, MT 59802	Chris Frandsen Missoula, MT 59801
Cindy Klette Missoula, MT 59802	CLAYTON FLOYD MISSOULA, MT 59801	Dale Bosworth Missoula, MT 59807
Dan Oko Missoula, MT 59807	Daniel Harper Missoula, MT 59801	Dave Jackson University of Montana Missoula, MT 59812
Dick King Missoula, MT 59802	Don Michels Missoula, MT 59802	Donna Finstad Missoula, MT 59802
Doug Reisig Hellgate Elementary Missoula, MT 59802	Douglas Webber Missoula, MT 59802	Dr. Jim Habeck University of Montana Missoula, MT 59812
Gary Wolfe Attn. Alan Christensen Missoula, MT 59807	George Bailey Missoula, MT 59801	George Bailey University Hall, Rm 116

Ginger Thomas Missoula, MT 59801	Graden Oeherich Missoula, MT 59802	Grant Parker Missoula, MT 59801
Gregg Schildwachter Missoula, MT 59802	Helena Maclay Missoula, MT 59807-9197	Horace Jones Missoula, MT 59803
Jack Tuholske Missoula, MT 59807	James Thill Missoula, MT 59803	JANE PERANTEAU MISSOULA, MT 59801
JANN CLOUSE MISSOULA, MT 59804	Jennie Dixon Missoula, MT 59802	Jennifer Ferenstein Missoula, MT 59802
Jim Carkulis Missoula, MT 59807	John Bonnicksen Missoula, MT 59801	John Nesser Missoula, MT 59807
Keith Christian Missoula, MT 59802	Kim Birck Missoula, MT 59802	Lauren Buckley Missoula, MT 59802
Leaf Magnuson Missoula, MT 59802	Lin Smith Missoula, MT 59807	Marcia Hogan Missoula, MT 59801
Mark Rotar Missoula, MT 59801	Mary Vagner Missoula Co Public Schools Missoula, MT 59801	Michael Magone Target Range Elementary
Mike Kupelik Missoula, MT 59801	Bureau of Land Management Missoula Resource Area Missoula, MT 59804	Wayne Koterba Westby K-12 Schools Westby, MT 59275
Cold Mountain Cold Rivers Missoula, MT 59807	KWYS West Yellowstone, MT 59758	Michael Smith West Yellowstone K- 12 Schls
KECI TV Missoula, MT 59802	KGRZ / KDXT Missoula, MT 59806	KLCY / KYSS / KGVO Missoula, MT 59802
KMSO Missoula, MT 59801	KPAX TV Missoula, MT 59806	KTMF TV Missoula, MT 59801
KUFM The University of Montana Missoula, MT 59812	KXLT Missoula, MT 59806	Lolo National Forest Missoula, MT 59804
Missoula County Public Schools Missoula, MT 59801	Missoula Public Library Missoula, MT 59801	Missoulia Missoula, MT 59801
Terry & Dennis Divoky West Glacier, MT 59936	Office of Senator Conrad Burns Missoula, MT 59802	Zak Anderson Washington, DC 20510

The Maureen and Mike Mansfield Library University of Montana	Patricia Hogan Missoula, MT 59801	Peggy Schmidt Missoula, MT 59802
Phoebe Hunter Missoula, MT 59801	Rachel Vielleux Missoula, MT 59802-4150	Reuel Janson Missoula, MT 59801
Reuel Jonson Missoula, MT 59801	RJ DEGROOT MISSOULA, MT 59801	Robert Lucas Missoula, MT 59803-1737
Robert Weaver Missoula, MT 59802	Robin Hamilton Missoula, MT 59801	Roger Bergmeier Missoula, MT 59803
Rosalie Cates Missoula, MT 59802	Ryan Shaffer Missoula, MT 59807	Scott McLeod Missoula, MT 59804
Steve McCool University of Montana Missoula, MT 59812	Steve Shelly Missoula, MT 59807	Sue & Jim Brown Missoula, MT 59802
Tara Barrett University of Montana Missoula, MT 59812	Tarn Ream Missoula, MT 59807	Thomas Power University of Montana Missoula, MT 59812
Thomas Swenson Missoula, MT 59802	Tim Hall Missoula, MT 59802	Timothy Bechtold Missoula, MT 59802
Tom France Missoula, MT 59802	Tony Veazey Missoula, MT 59802	Tracy Olson Missoula, MT 59807
Vicki Watson Missoula, MT 59801	Vivian Brooke Missoula, MT 59801	Wendy Ninteman Missoula, MT 59807
John Baule Moore Public Schools Moore, MT 59464	Bruce Peterson Nashua K-12 Schools Nashua, MT 59248	Robert Lukes Noxon Public Schools Noxon, MT 59853
Kris Kuehn Opheim K-12 Schools Opheim, MT 59250	James Riedlinger Outlook K-12 Schools Outlook, MT 59252	Dale Becker Pablo, MT 59855
Janet Camel Pablo, MT 59855	Joe Hovenkotter Pablo, MT 59855	Char-Koostra News Pablo, MT 59855
Ralph Goode Pablo, MT 59855	Rhonda Swaney Pablo, MT 59855	Sam Morigeau Pablo, MT 59855
ANNE COSSITT PARK CITY, MT 59063	Bob Barnes Park City Public Schools Park City, MT 59063	Bud Veis Peerless K-12 Schools Peerless, MT 59253

Dr David Lee Philipsburg K-12 Schools Philipsburg, MT 59858	Jo Ann Husbyn Philipsburg, MT 59858	Vern Swanson Philipsburg, MT 59858
Bob Anderson Winifred K-12 Schools Winifred, MT 59489	Dan Rude Plains, MT 59859	Dave McEldery Plains, MT 59859
Jean Uriau Plains, MT 59859	Kathy McEldery Plains, MT 59859	Ron Rude Plains Public Schools Plains, MT 59859
T. Millar Bryce Plains, MT 59859	Arlyn Sundsted Plentywood K-12 Schools Plentywood, MT 59254	Doug Smith Plentywood, MT 59254-0191
Milton Hovland Plentywood, MT 59254	KATQ Plentywood, MT 59254	Carter Christiansen Plevna K-12 Schools Plevna, MT 59344
Robert Marchesseault Polaris, MT 59746	Ric Molen Washington, DC 20510	Richard Wackrow Polebridge, MT 59928
Betty & George Heliker Polson, MT 59860	Daniel Haugen Polson Public Schools Polson, MT 59860	Diana Smith Polson, MT 59860
Elaine Corrigan Polson, MT 59860	Gary Moon Polson, MT 59860	Joyce Decker Wegner Lake County Courthouse
Allan Sipes Shields Valley Public Schls Wilsall, MT 59086	KQRK Polson, MT 59860	Yellow Bay Research Station Polson, MT 59860
	Rob St. Clair Polson, MT 59860	Florence Ore Pony, MT 59747
Ivan Small Poplar Public Schools Poplar, MT 59255	Fort Peck Tribes Poplar, MT 59255	Wotanin Wowapi Poplar, MT 59255
Charles Hurin, Jr. POWER, MT 59468	Gary & Debby Gunderson POWER, MT 59468	Ward Fifield Power Public Schools Power, MT 59468
Joe Barbero Pryor Public Schools Pryor, MT 59066	Mark Giese Racine, WI 53403	Tony Schoonen Ramsay, MT 59748
Jerry Thompson Rapelje Public Schools Rapelje, MT 59067	Barb Beck Red Lodge, MT 59068	Don Kinney Red Lodge, MT 59068-1935
Glory Mahan Red Lodge, MT 59068	Herb Noyes Red Lodge, MT 59068	Jerry Scott Red Lodge, MT 59068

Mark Brajcich Red Lodge Public Schools Red Lodge, MT 59068	Gary Wilz Reedpoint Public Schools Reedpoint, MT 59069	Paul Wagner Richey Public Schools Richey, MT 59259-
Randy Durr Roberts K-12 Schools Roberts, MT 59070	Tim Rollins Rollins, MT 59931	Billie Lee Ronan, MT 59864
Donn Livoni Ronan Public Schools Ronan, MT 59864	Dan Lantis Rosebud Public Schools Rosebud, MT 59347	J Jay Erdie Roundup Public Schools
Kathryn Pfister Roundup, MT 59072	Dustin Sturm Roy K-12 Schools Roy, MT 59471	Ellis Roberts Parry Blue Sky K-12 Schools Rudyard, MT 59540
Robert Heppner Ryegate K-12 Schools Ryegate, MT 59074	Sharon Carpenter Ryegate, MT 59074	Sandra Stellflug Saco Public Schools Saco, MT 59261
Jan Cahill Centerville Public Schools Sand Coulee, MT 59472	John McNeil Savage Public Schools Savage, MT 59262	Dave Selvig Scobey K-12 Schools Scobey, MT 59263
KCGM Scobey, MT 59263	Patricia McDonnell Scobey, MT 59263	Donald Nettleton Seattle, WA 981044096
Steve Myhr Seattle, WA 98134	Gordy Sanders Seeley Lake, MT 59868	J.L. Ashmore Seeley Lake, MT 59868
Jerry Parker Seeley Lake, MT 59868	John Hebnes Seeley Lake, MT 59868	Mark Nicholson Seeley Lake, MT 59868
Melvin Ketland Seeley Lake, MT 59868	Montana State Leaseholders Assn. Seeley Lake, MT 59868	Penny Copps Seeley Lake, MT 59868
Peter Gleim Seeley Lake, MT 59868	Stanley Nicholson Seeley Lake, MT 59868	Tim Tanberg Seeley Lake, MT 59868
William Hyde Seeley Lake Elementary Seeley Lake, MT 59868	Charles Topley Shelby Public Schools Shelby, MT 59474	Larry Bonderud Shelby, MT 59474
Maria Harrison County Courthouse Shelby, MT 59474	KSEN / KZIN Shelby, MT 59474	Calvin Spangler Shepherd Public Schools
Ben Beaudry Willow Creek Public Schools	Glenn Hageman Sheridan Public Schools Sheridan, MT 59749	Jim Edwards Sheridan, MT 59749
Richard Gotshalk Sheridan, MT 59749	Doug Sullivan Sidney Public Schools Sidney, MT 59270	Mike Carlson Sidney, MT 59270

Richland County Weed District Sidney, MT 59270	Richard Riedmann Sidney, MT 59270	Sharon Rau Sidney, MT 59270
Bruce Wallace Sun River Valley Pub Schls Simms, MT 59477	Franklin Schroeter Somers, MT 59932	Robert Smith Somers Elementary Somers, MT 59932
Dr John Matt St Ignatius K-12 Schools St Ignatius, MT 59865-1540	Ed Sansom St Regis K-12 Schools St Regis, MT 59866	Raymond Frey St. Ignatius, MT 59865
Thompson Smith St. Ignatius, MT 59865	LaDene Raihl Stanford, MT 59479	Peggy Petersen Stanford K-12 Schools Stanford, MT 59479
Dale Burke Stevensville, MT 59870	Darlene Grove Stevensville, MT 59870	Dennis Kimzey Stevensville Public Schools
Mike Williams Lone Rock Elementary Stevensville, MT 59870	Lauren Dundee STOCKETT, MT 59480	John Hvidsten Sunburst K-12 Schools Sunburst, MT 59482
Verda Swenson Sundance, WY 82729	Billye Ann Bricker Superior, MT 59872	Christine Tuckerman Superior K-12 Schools Superior, MT 59872
J. Henderson Superior, MT 59872	Extension Service - Mineral County Superior, MT 59872	Mineral Independent Superior, MT 59872
Anne & Greg Morely Swan Lake, MT 59911	Arlene Montgomery Swan Lake, MT 59911	Neil Meyer Swan Lake, MT 59911
Cindy Bond Terry, MT 59349	David Schwarz Terry, MT 59349	
R Gary Ryti Terry K-12 Schools Terry, MT 59349	Dr Jerry Pauli Thompson Falls Public Schls Thompson Falls, MT 59873	Jay and Eve Stuckey Thompson Falls, MT 59873
Mark Sheets Thompson Falls, MT 59873	John Overstreet Three Forks Public Schools	Franklin Slifka Toston, MT 59643
Ann Rauser Townsend, MT 59644-1336	Brian Patrick Townsend K-12 Schools Townsend, MT 59644-2215	Daron Duncan Townsend, MT 59644-
Dave Whitby Townsend, MT 59644	Elaine Graveley Townsend, MT 59644	Anne Katsaris Trout Creek, MT
Wayne Lersbak Troy Public Schools Troy, MT 59935	Jeff Webber Turah, MT 59825	Ken Bondy Turner Public Schools Turner, MT 59542

Frank Rives Helena, MT 59624-1725	Lucy Morell-Gengler Helena, MT 59623	Chris Behan Missoula, MT 59802-
Jeff Bollman Billings, MT 59101-1156	Duane Ferdinand Lewistown, MT 59457	Russell Connole Lewistown, MT 59457
Russell Connole Butte, MT 59701-9256	Janet Cornish Butte, MT 59701-9002	Sheri L Johnson Baker, MT 59313-1134
Jami Morris Bozeman, MT 59771-1230	John Eisen Billings, MT 59101-5822	Doris Fischer Virginia City, MT
Craig Erickson Havre, MT 59501	Andrew Finch Great Falls, MT 59403-5021	Harold Fossum Helena, MT 59623
McCone County Commissioners Circle, MT 59215-0199	Anaconda-Deer Lodge County Commissioners	Beaverhead County Commissioners
Big Horn County Commissioners	Blaine County Commissioners Chinook, MT 59523-0278	Broadwater County Commissioners
Butte Silver Bow County Commissioners	Carbon County Commissioners	Carter County Commissioners
Cascade County Commissioners	Chouteau County Commissioners	Custer County Commissioners
Daniels County Commissioners	Dawson County Commissioners	Fallon County Commissioners
Fergus County Commissioners	Flathead County Commissioners	Gallatin County Commissioners
Toole County Commissioners	Treasure County Commissioners	Valley County Commissioners
Wheatland County Commissioners	Wibaux County Commissioners	Yellowstone County Commissioners
Garfield County Commissioners	Glacier County Commissioners	Golden Valley County Commissioners
Granite County Commissioners	Hill County Commissioners Havre, MT 59501-3999	Jefferson County Commissioners

Judith Basin County Commissioners	Lake County Commissioners Polson, MT 59860-2125	Lewis and Clark County Commissioners
Liberty County Commissioners	Lincoln County Commissioners Libby, MT 59923-1942	Madison County Commissioners Virginia City, MT
Stillwater County Commissioners	Sweet Grass County Commissioners	Teton County Commissioners
Meagher County Commissioners	Mineral County Commissioners Superior, MT 59872-0550	Missoula County Commissioners Missoula, MT 59802-
Musselshell County Commissioners Roundup, MT 59072-2498	Park County Commissioners Livingston, MT 59047-2799	Petroleum County Commissioners Winnet, MT 59087-
Phillips County Commissioners Malta, MT 59538-0360	Pondera County Commissioners Conrad, MT 59425-2340	Powder River County Commissioners Broadus, MT 59317-
Powell County Commissioners Deer Lodge, MT 59722-	Prairie County Commissioners Terry, MT 59349-0125	Ravalli County Commissioners Hamilton, MT 59840-
Richland County Commissioners Sidney, MT 59270-4087	Roosevelt County Wolf Point, MT 59201-1600	Sheridan County Commissioners Plentywood, MT
Rosebud County Commissioners Forsyth, MT 59327-0047	Sanders County Commissioners Thompson Falls, MT 59873-	Steve Kelley Bozeman, MT 59771
Jonathan Haber Missoula, MT 59802	Rick Hartz Dillon, MT 59725-2799	Thomas Jentz Kalispell, MT 59901-5366
Jason Karp Belgrade, MT 59714	John Marks Miles City, MT 59301-0910	Michael McHugh Helena, MT 59602
Michael Barros Helena, MT 59623	Eric Mulcahy Kalispell, MT 59901	John Nerud Great Falls, MT 59404
Jody Sandford Bozeman, MT 59771-1230	Lanette Windermaker Bozeman, MT 59715-7126	Betty Alexander Big Timber, MT 59011
Hillary Roth-Taylor Livingston, MT 59047	Linda Stoll Helena, MT 59601	Susan Kozub Bozeman, MT 59771-0640
Mark Evans Bozeman, MT 59715	Tammy McGill Columbus, MT 59019	Linda Payne Columbus, MT 59019

Sharon Haugen Helena, MT 59624	Marcy Hamburg Sidney, MT 59270-5292	Johna Morrison Kalispell, MT 59901
Lindsay Morgan Helena, MT 59624	Mark Crowley Kalispell, MT 59901	David Stauffer Red Lodge, MT 59068
David DeGrandpre Polson, MT 59860	Randy Carpenter Bozeman, MT 59715	Sherry Marshall Wolf Point, MT 59201
Sean O'Callaghan Bozeman, MT 59715	Robert Rasmussen Helena, MT 59624-0200	John Beaudry Billings, MT 59106
Candi Beaudry Billings, MT 59101	Nicole Cromwell Billings, MT 59101	Ramona Mattix Billings, MT 59101
Bruce McCandless Billings, MT 59101	Juliet Spalding Billings, MT 59101	Wyeth Friday Billings, MT 59101
Lora Mattox Billings, MT 59101	Scott Christopher Bozeman, MT 59715	Victoria Drummond Bozeman, MT 59715
Joyce T-Weaver Polson, MT 59860	Greg Avent Great Falls, MT 59404	Candace Mastel Bozeman, MT 59718
Tim Beck Kalispell, MT 59901	Harry Harker Red Deer, AB T4S 2L9	Brian Clifton Great Falls, MT 59404
John Horwich Missoula, MT 59812-6552	Paul Bussi Bozeman, MT 59715-4574	Allyson Bristor Bozeman, MT 59771
Nicholas Kaufman Missoula, MT 59808-6027	Warren Vaughn Bozeman, MT 59715	Mike Volesky Helena, MT 59601
Harry Harker Red Deer, AB T4S 2L9	KMTX Helena, MT 59624	Ben Long Kalispell, MT 59901-
Scott Hicswa Wilsall, MT 59086-0087		

June 21, 2004

Dear Interested Party:

As part of an ongoing program review and following an internal and external scoping process, the Trust Land Management Division of the Montana Department of Natural Resources and Conservation (DNRC) has prepared a Draft Programmatic Environmental Impact Statement (DPEIS) to analyze and disclose impacts and compare alternative management strategies for real estate management on state Trust Lands. A Final Environmental Impact Statement (FEIS) will identify a preferred alternative that will, in turn, become the Real Estate Management Plan. The Plan will provide the Division's Real Estate Management Bureau with consistent policy, direction and guidance in its management of real estate activities on the state's 5.2 million acres of Trust Lands.

The DPEIS document is available for review at the DNRC web site as indicated below. You are encouraged to read and comment on the DPEIS. All substantive comments will be evaluated and considered in the preparation of the FEIS.

Web Site: www.dnrc.state.mt.us/programmatic/deis.htm

Copies of the DPEIS are also available upon request in the following formats:

- Computer disk (.pdf format);
- Printed hardcopy, with or without appendices; or
- Printed Executive Summary.

Requests for documents and comments on the DPEIS should be addressed to:

Real Estate Management Programmatic EIS Team
Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620 - 1601

Members of the DPEIS team will be holding public meetings in an open house format across the state to help publicize the release of the DPEIS and to highlight key elements of the draft document. The meetings are also intended to provide a two-way dialogue between the public and DNRC team members concerning any elements of the DPEIS.

Meeting locations and dates are listed below. People can visit each location anytime between 3:00 p.m. to 8:00 p.m. and participate in an open house-type format.

City	Location	Date
Billings	War Bonnet Inn 2612 Belknap Ave	July 8, 2004
Bozeman	State of Montana Office Building DNRC Bozeman Unit 2273 Boot Hill Court	July 12, 2004
Missoula	Best Inn South Conference Center 3803 Brooks Street	July 13, 2004
Kalispell	Hampton Inn Spring Creek Rm 1140 Hwy 2 West	July 14, 2004

Helena	Cube Lounge, Campus Center Carroll College 1601 North Benton	July 15, 2004
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Comments on the DPEIS must be sent to the Helena address previously listed or via e-mail at: rembpeis@state.mt.us. To be considered in the preparation of the FEIS, comments must be in writing or e-mail and be received [by DNRC] by no later than 5:00 p.m. on August 23, 2004. Along with your comments, please be sure to include your name and address.

For more immediate information or other related questions on the release of the DPEIS, please contact Jeanne Holmgren at 406.444.2074.

Date: **June 21, 2004**

For More Information Contact:

Dan Bushnell
DNRC Public Information Officer
406-444-0465

FOR IMMEDIATE RELEASE

DNRC Real Estate Management Bureau Announces Completion of Draft Programmatic Environmental Impact Statement

(Agency Asking For Public Comment)

Helena, Mont- As promised, the Montana Department of Natural Resources and Conservation (DNRC) has completed a Draft Real Estate Management Programmatic Environmental Impact Statement (DPEIS). The DPEIS proposes five alternatives to diversify the state trust lands statewide for commercial, conservation, industrial, and residential uses. The DPEIS is available on the DNRC web site at www.dnrc.state.mt.us/programmatic/deis.htm

"We feel it's a comprehensive document", according to Jeanne Holmgren, Chief of the Real Estate Management Bureau (REMB). "The purpose of the DEIS is to seek public comment on the alternative proposals, which will be used to help identify a preferred alternative. The preferred alternative will guide the decisions of the REMB, previously known as the Special Use Management Bureau, under the Trust Land Management Division of DNRC. All alternatives anticipate a structured land and project evaluation process that includes local government review of future land use actions."

The public comment begins on June 21 and extends for 60 days through August 20, 2004, providing the public and concerned groups and organizations the opportunity to provide DNRC with substantive comments, explained Holmgren. Additionally, the agency will be conducting open houses regarding the DPEIS statewide. The dates, locations and times are listed below:

Billings

July 8th

War Bonnet Inn
2612 Belknap Ave.

Bozeman

July 12th

State of Mont. Office Bldg
DNRC Bozeman Unit
2273 Boot Hill Court

Missoula

July 13th

Best Inn South
Conference Center
3803 Brooks St.

Kalispell

July 14th

Hampton Inn- Spring Crk Rm
1140 Hwy 2 West

Helena

July 15th

Cube Lounge -Campus Center
Carroll College
1601 N. Benton

The open house sessions are structured to provide you with information regarding the DPEIS. All comments will be accepted in written format at the following address: REMB

PEIS, P.O. Box 201601, Helena, MT 59620. In addition, comments may be sent electronically at the following e-mail address: rembpeis@state.mt.us.

For more information, contact Jeanne Holmgren, Chief REMB at the DNRC office in Helena, 406-444-2074.

###DNRC###

Legal Notification posted on July 7, 2004 in The Daily Inter Lake, Missoulian, Bozeman Daily Chronicle, Independent Record

Requests for Comment

As part of an ongoing program review and internal and external scoping process, the Trust Land Management Division of the Montana Department of Natural Resources and Conservation (DNRC) has prepared a Draft Programmatic Environmental Impact Statement (DPEIS) to analyze and disclose impacts and compare alternative management strategies for real estate management on State School Trust Lands. A Final Environmental Impact Statement (FEIS) will identify a preferred alternative that will, in turn, become the Real Estate Management Plan. The Plan will provide the Division's Real Estate Management Bureau with consistent policy, direction and guidance in its management of real estate activities on the state's 5.2 million acres of Trust Lands.

The DPEIS document is available for review at the DNRC web site as indicated below. You are encouraged to read and comment on the DPEIS

Web Site: www.dnrc.state.mt.us/programmatic/deis.htm

- Copies of the DPEIS are also available upon request. Requests for documents and comments on the DPEIS should be addressed to:

Real Estate Management Programmatic EIS Team
Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620 - 1601

DNRC will be holding open houses across the state to help publicize the release of the DPEIS and to highlight key elements of the draft document. The meetings are also intended to provide a two-way dialogue between the public and DNRC team members concerning any elements of the DPEIS.

Meeting locations and dates are listed below. People can visit each location anytime between 3:00 p.m. to 8:00 p.m. and participate in an open house-type format.

July 8th
Billings
War Bonnet Inn -2612 Belknap Ave

July 12th
State of Montana Office-DNRC
2273 Boot Hill Court

July 13th
Missoula
Best Inn South -Conference Center
3803 Brooks St.

July 14th
Kalispell
Hampton Inn – Spring Cr. Room
1140 Hwy 2 West

July 15th
Helena
Carroll College Campus - Cube Lounge
1601 N. Benton

Comments on the DPEIS must be sent to the Helena address previously listed or via e-mail at: rembpeis@state.mt.us. To be considered in the preparation of the FEIS, comments must be in writing or e-mail and be received [by DNRC] by no later than 5:00 p.m. on August 20, 2004. Along with your comments, please be sure to include your name and address.

For more immediate information or other related questions, please contact Jeanne Holmgren at 406.444.2074.

Draft Real Estate Management Programmatic EIS

List of Agency Contacts, Information Sources, and Addresses

The Draft Programmatic Environmental Impact Statement (DPEIS) is available for review at the DNRC web site as indicated below. You are encouraged to read and comment on the DPEIS.

Web Site: www.dnrc.state.mt.us/programmatic/deis.htm

Copies of the DPEIS are also available upon request. Requests for documents and comments on the DPEIS should be addressed to:

Real Estate Management Programmatic EIS Team

Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620 - 1601

In addition to the above address, written comments may also be sent electronically at: rembpeis@state.mt.us

NOTE: To be considered in preparation of the Final EIS, written or electronic comments must be received by 5:00 p.m. on August 20, 2004.
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For general information concerning the EIS process or related questions, you may contact the following individuals:

David Greer, Statewide Planner, DNRC
406.755.3832 or dgreer@state.mt.us

Jeanne Holmgren, Chief, Real Estate Management Bureau, DNRC
406.444.3844 or jholmgren@state.mt.us

Attendees at DEIS Open Houses

Billings Mt. War Bonnet Inn 7-8-04

Susan Newell
Custer N.7 1310 Main
Billings, Mt. 59105

Jan Wheeler
DNRC Billings

James Phelps
Yellowstone Valley Audubon
2110 Bradbrook Ct.
Billings, Mt. 59102

Bozeman 7-12-04

Glen E. Rickett
401 N. 31st
Billings, Mt. 59103-7224

Missoula, Mt. 59804

Missoula, Mt. 7-13-04

Mike Bader
Box 5395
Missoula, Mt. 59806

Sarah Pierce
DNRC
Missoula

Paul Bjerke
625 Whitaker
Missoula, Mt. 59803

Sarah Crow
DNRC
Missoula

Nancy Heil
Office of Planning and Grants
435 Ryman
Missoula, Mt. 59802

Jo Bernofsky
243 Mount Ave.
Missoula, Mt. 59801

Raylene Goul
Bitterroot NF
1801 N. 1st
Realty Specialist
Hamilton, Mt. 59804

Mike Kress
Missoula Office of Planning and Grant
435 Ryman
Missoula, Mt. 59802

Ann Ibey
Missoula, Mt. 59875
No address provided

John Firebaugh
3201 Sprugin Rd.
DFWP
Missoula, Mt. 59804

Deb Essen
1572 Blue Lupine Lane
Victor, Mt. 59875

Lowell Whitney
5335 Fiddler Ct.
Florence, Mt. 59833

Susan Reneau
5425 Skyway

Linda Holtom
1401 27th Ave.
Missoula, Mt. 59804

James Jonkel
1945 Buelington
Missoula, Mt. 59801

Robin Wall
235 E. Sussex Ave.
Missoula, Mt. 59801

Iris Wall
235 E. Sussex
Missoula, Mt. 59801

Ken Hayes
2735 S. 7 W.

Kalispell, July 14, 2004

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Standard Comment Form

Draft Real Estate Programmatic EIS

Date:

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City/Zip:

Please try to provide specific comments

General Comments:

Chapter 1:

Chapter 2:

Chapter 3:

Chapter 4:

Chapter 5:

Note: You may choose to provide written comments in any desired format. This form is only provided for convenience. All written comments must be directed to: Real Estate Management Programmatic EIS Team, Department of Natural Resources and Conservation, P.O. Box 201601, Helena, MT 59620 - 1601

APPENDIX A-3

Response to Comments and Copies of Letters Received During the DEIS comment Period (June 21 – August 20, 2004)

Summary of Comments and Responses

Real Estate Management Programmatic Environmental Impact Statement Response to DEIS Comments	
Comment	Response
<i>General Comments</i>	
The PEIS lacks a clear “goal”. By failing to establish a clear subset of lands to be placed into commercial, residential and industrial uses, it assumes that all lands could be considered for development. What then is the relationship between the REMB and the other bureaus within the Trust Land Management Bureau, given the potential that “all lands” could be considered for development? SI, AFTWR, FOTWS	<p>The Trust Land Management Division manages a land portfolio of approximately 5.2 million acres, most of which is being managed for timber, agriculture, or grazing. This management emphasis on natural resources is expected to be dominant for the foreseeable future. Lands suitable for real estate development are linked to economic and demographic factors and as suggested in the DPEIS, will likely remain less than 1% of the total trust land portfolio. The programmatic portion of the funnel filter creates a set of performance standards to create a subset of lands that might be eligible for future development. The Final EIS includes 2 biological filters (grizzly recovery and core bull trout areas) that further define a smaller subset of eligible lands.</p> <p>The Trust Land Management Division will work together in identifying lands that may have development potential for residential, industrial, conservation and commercial uses. The evaluation of real estate opportunities will be undertaken in the context of and with respect to the management goals associated with timber, agriculture and grazing as well as for real estate development. The REMB will not operate in isolation from the other bureaus.</p> <p>See also Sections 1.1.3, 1.1.4, 2.3.1, 2.7, 2.10.</p>
The PEIS should address “an identified and limited universe of Trust assets be considered for development”. SI	<p>The PEIS provides a framework and a guide for each land office as they evaluate Trust Lands in regard to their suitability for commercial, industrial, conservation, and residential uses. As noted in the above response, performance measures, such as slope, floodplain, and proximity to infrastructure serve to limit the type of lands that might be suitable for development. The Project Selection process will create a list of potential projects on a 1, 3, and 5 year priority basis.</p> <p>See also sections 1.1.3, 1.1.4, 2.3.1, 2.10</p>
The PEIS lacks quantifiable benchmarks to measure success. SI	<p>The acres of projected development associated with each management alternative provide a reasonable guide to test general conformance or success to a chosen alternative. The monitoring section of the EIS provides a methodology to test compliance with the selected alternative.</p> <p>See also section 4.3.</p>
The PEIS process may benefit from the delay of the final document until the	The Whitefish neighborhood planning process was primarily initiated by DNRC in response to the actions of the county and city to update the City-County growth policy for that area. Under each of the

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Whitefish Trust Land Plan is completed. SI	<p>proposed plan alternatives, DNRC intends to engage with the local planning processes, including the option to pursue neighborhood plans as a means of clarifying management options for trust lands. Each planning situation may be different depending on location and interest by the local community, While the Whitefish planning process may provide a good “case study” for evaluating the role that Trust Lands have in community development, it is not a case that can be universally applied across the state. For example, in the Whitefish area</p> <p>Trust lands are located close to the urban fringe; Rapid residential growth is occurring adjacent to Trust Lands; and Recreation is a key component of the area economy. This is not true for every land office region. The six DNRC land offices vary widely regarding land types and socioeconomic conditions. The PEIS provides a flexible framework for addressing real estate development on Trust Lands that can be applied as appropriate depending on area characteristics. Alternatives C and D provide an emphasis on securing maximum land entitlements, which in most situations would provide community involvement in project decisions. See also sections 2.6.4 , 2.6.6, 2.9.6, 2.9.7</p>
The DNRC should avoid developer driven growth. BF	<p>The identification of lands suitable for projects would be achieved through funnel filtration process as carried out by each local land office. The funnel filtration process, under all alternatives, “provides a systematic approach to identify project level opportunities”. All project proposals, regardless of how they may have been identified, would require review and approval through the project selection process. At the project level, the cost of development will be born by the developer, to the greatest extent possible, within the context of meeting requirements under MEPA and local land use policies and regulations. Under Alternative A, the DNRC would rely to a greater extent on the developer to identify projects, whereas under the other alternatives, the REMB staff would have an increasingly greater role in selecting and ranking projects for specific review. The REMB would also be increasingly more active in obtaining the necessary entitlements to direct growth to specific areas in keeping with local land use policy as well as MEPA. See also sections 2.3.1, 2.6, Chapter 5</p>
The PEIS should include a public disclosure and ethics policy in light of the failure to disclose the activities of the DNRC to the public in both the Section 36 project and the Whitefish neighborhood plan. BF	<p>DNRC conducted both processes in a very public fashion, including newspaper notices and dozens of public hearings/meetings. The public involvement and participation process for the Section 36 Neighborhood plan is summarized in the Section 36 EIS, June 2001. The planning process for Whitefish anticipated a year-long effort that was initiated with a public meeting and continues to have public meetings on a weekly basis. DNRC is proposing to have local review on all applicable projects to maximize public involvement in real estate use decisions.</p>

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	See also sections 2.3.1, 2.9.6, 2.9.7, chapter 5
The DPEIS lacks criteria and direction to maximize long term revenue while protecting the environment. SG, AFTWR, FOTWS, MEIC	Long term revenue can be achieved through leasing or selling of land. Market conditions will often determine whether leasing or selling is a preferred revenue strategy. In situations where leasing is not practical, selling may offer the only mechanism to capture land values and generate revenue to the trusts. Money from land sales is held in the permanent trust that generates annual revenue through investment strategies. Environmental impacts would be evaluated with compliance to local land use regulations and MEPA. Alternatives C and D stress improving land entitlements before the sale of any land to improve land values and to identify project outcome objectives. See also sections 2.6.4, 2.6.6, 2.9.5, 2.10
The PEIS falsely assumes that a large percentage of state land will be made available for development regardless of the impact that development will have to communities or the natural environment. SG, MEIC	Section 2.6 of the draft PEIS presents the potential increases in residential, commercial and industrial uses by acre on Trust Lands, between 2003 and 2025. Under Alternative C, the most aggressive alternative, additional acres directed to residential uses would increase by a factor of 0.27% to 0.46% (mid range values) of the total Trust Land acreage. Industrial and commercial uses would increase by a factor of 0.12% to 0.20% of the total Trust Land base. This can be compared to conservation acres which would grow by a factor of 0.47% of the total land base under Alternative C. The programmatic portion of the filter analysis creates a subset of lands (through performance descriptors) that might be eligible after considering such factors as topography, floodplains, critical wildlife habitat, and proximity measurements. See also sections 2.3.1, 2.10, 4.1.3 and Appendix G & H
The PEIS would benefit from the adoption of three overriding principles: A manageable number of state land parcels should be identified for development. The filter process should be limited to identifying only certain lands for consideration. The DNRC should adopt performance standards to assure that revenue to the Trust is increased while impacts to the environment and the community are minimized. SG, MEIC	The draft PEIS has been developed with respect to a set of objectives that in turn provide a management philosophy for the REMB. These objectives are listed on Page E-4 of the draft PEIS. With respect to performance standards, it is the mission of the Trust Land Management Division of DNRC as well as the stated purpose of the PEIS to “assure that revenue to the Trust is increased while impacts to the environment and the community are minimized”, (ref: Page 1-2). Alternative D was created to further address these issues. See also sections 2.3.1, 2.6.6, 2.10, 2.11.1
The PEIS should direct the REMB to produce an annual	DNRC publishes an annual report and return on assets report. Monitoring of the selected plan alternative is discussed in Chapter 4

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report (ref. 4.3.1) that measures activities in terms of established criteria. SG, MEIC	of the DPEIS.
Jody Sanford of the Bozeman planning office provided line edits for typographical and technical errors throughout the document.	Technical and typographical edits are incorporated in the final PEIS. Please refer to the corresponding sections of the FEIS..
<i>Funnel Filter Process – General Comments</i>	
Overall, the funnel does not pre-select lands suitable for development. The filters, while well conceived, do not completely eliminate lands from consideration. Rather it is a comparative tool, leaving all lands “at risk from development”. In the absence of setting a limit on land development, the REMB will be in a reactive position, responding to proposals and the resulting decisions will be driven by developers and proponents of development. In taking a project by project approach, the REMB will likely waste time on projects that will ultimately be rejected. Without “pre-selection”, communities will receive no advance notice of proposed areas of development. SI	<p>It is not the role of the PEIS to pre-select lands for development or to completely eliminate lands from consideration. The PEIS provides a framework for each local land office to identify suitable lands for development. As stated on page E-5, the document states, “It (the PEIS) does not address any specific real estate program or project. It does not address site specific issues nor does it make specific land use allocations. Individual activities of the REMB will be subject to the provisions set forth in MEPA.”</p> <p>The identification suitable lands would be achieved through funnel filtration process as carried out by each local land office. Per 2.3 of the PEIS, the funnel filtration process, under all alternatives except A, “provides a systematic approach to identify project level opportunities”. At the project level, the cost of development will be born by the developer, to the greatest extent possible, within the context of meeting requirements under MEPA and local land use policies and regulations. Under Alternative A, the DNRC would rely to a greater extent on the developer to identify projects, whereas under the other alternatives, the REMB staff would have an increasingly greater role in selecting and ranking projects for specific review. The REMB would also be increasingly more active in obtaining the necessary entitlements to direct growth to specific areas in keeping with local land use policy as well as MEPA. All project proposals would be subject to the Project Selection process identified in Figure 2.5 and by so-doing would minimize the reactive mode of project opportunities.</p>
The PEIS does not clearly indicate how existing “special uses”, such as residential cabin leases, will be addressed under the funnel filter process. SI	The funnel process is primarily a decision-making framework for identifying new land use opportunities or proposed changes to existing uses. The PEIS indicates that existing leased properties would not be sold in most situations (see Section 2.3.1)

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Table 2-19 demonstrates that the funnel filter is too coarse and focuses on process rather than outcomes. The filter should include "outcome criteria". SG, MEIC	<p>The funnel filter produces an outcome from a series of filters that identify lands suitable for project development. It is not the role of the PEIS to pre-select lands for development or to completely eliminate lands from consideration. The PEIS provides a framework for each local land office to identify suitable lands for development. As stated on page E-5, the document states, "It (the PEIS) does not address any specific real estate program or project. It does not address site specific issues nor does it make specific land use allocations. Individual activities of the REMB will be subject to the provisions set forth in MEPA." The document provides a process and an approach to real estate development. It is not intended to provide specific outcomes.</p> <p>The Objectives of the Plan (Page E-4) provide the overall management philosophy for the REMB as well as the basis for measuring outcomes, and must be addressed as part of any real estate project undertaken by the Bureau.</p> <p>All alternatives achieve outcome objectives as a result of following the filter process that includes project review by local land use authorities. Alternative D was designed to emphasize outcome objectives.</p> <p>See also sections 2.6.6, 2.9.6, 2.9.7, 2.10, 2.11</p>
The funnel filter process is too general and simplistic. Detailed lists of factors and criteria should be identified to evaluate a parcel of Trust land against a particular filter (Figure 2-4) BP	<p>The funnel process is very detailed and comprehensive. The first filter, for example, generally excludes lands for potential development if they are too steep or located within wetlands or within certain types of critical habitat. The regulatory and project filters "pick-up" all the applicable local, state and federal regulations. The MEPA filter is very detailed, requiring environmental review before a state decision. The same could be said for all other filters of the funnel process.</p> <p>The PEIS provides a process that provides each land office with a methodology to perform program responsibilities of the REMB. The six DNRC land offices vary widely regarding land types and socioeconomic conditions. The PEIS provides a flexible framework for addressing real estate development on Trust Lands that can be applied as appropriate depending on area characteristics.</p> <p>See also section 3.3.1, Appendices C, G, H</p>
The presence/absence of important wildlife and fisheries habitat should be a part of the filter process. These alone should stand as criteria for no residential, commercial, or industrial development. FWP, AFTWR, FOTWS	The regulatory filter of the funnel filter process considers local, state, and federal regulations, many of which have some relationship to "important" wildlife and fisheries habitat. In addition, the funnel filter has been amended in the FEIS to consider such biological filters as grizzly bear and bull trout habitats.. Project level proposals will be further evaluated through the MEPA process, which requires consideration of these type of natural features.

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<i>Physical Environment Filter</i>	
The DNRC should use a more accurate digital elevation model (DEM) to determine unsuitable lands. SI	<p>We agree that it will be desirable to use a 30meter digital elevation model cell size (or 10 meter where available) for the project levels of the funnel filter process and associated growth studies. The 90 meter DEM used for this transitional phase of the analysis was derived from the state library's 30 meter DEM statewide composite. This DEM was subsampled to 90 meters for subsequent grid analysis used in the model for layers derived from the digital elevation model, such as slope, weighted distances and simulated floodplain. The 90 meter cell size was used primarily for expediency in processing. For the analysis it was necessary to create dozens of grid layers for each of the six land offices, and a 90 meter grid cell size was more efficient (Nine 30 meter cells equal one 90 meter cell).</p> <p>A second reason for subsampling to 90 meters was to equalize the analysis for all state trust lands across the state. The most accurate DEMs available are from commercial sources such as Space Imaging. DEMs at 10 meter cell size are available for the entire state, but at a cost of \$2/square kilometer (\$750,000 to purchase the entire state). The 30meter DEMs, originated by USGS 7.5 minute map tiles, are available in the public domain with complete coverage for the state, but approximately one-third of these map tiles are USGS level 1 files with significant internal error in the form of horizontal and vertical striping. The data striping can create effects such as 30 foot linear ridges throughout the quad. Slopes over 25% was the main criteria we used for developable lands, and level 1 data can create erroneous slope values in local areas. Subsampling to 90 meters effectively spreads this error over wider areas and generalizes the striping error.</p>
GIS layers should be used to identify additional disqualifying criteria such as regulatory or political constraints and other environmental characteristics such as availability of water. SI	For a statewide programmatic EIS it is an inefficient use of resources to do the background research, data collection, and geospatial analysis on every individual trust land parcel. It makes sense to narrow the scope of that type of analysis to a smaller subset of lands, determined in the project level of the funnel filter process. The budget required to do this level of analysis for every parcel would be unreasonably large. Fifty six counties and multiple municipalities, each with different political constraints and regulatory environments, along with state and federal regulatory issues makes this type of analysis more appropriate on a small subset of lands determined in the project level analysis. There are also data deficiencies to contend with. Availability of water was mentioned as an example. We did measure proximity to surface hydrology, streams and rivers identified in the National Hydrologic Database as a part of the residential growth analysis. Availability of water from subsurface sources is more problematic. A well log database does exist for Montana and is

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	maintained by the Montana Bureau of Mines and Geology. The data, however, is derived from well log reports and public land survey descriptions. The locational accuracy and completeness of the data varies widely. The well depth also varies, and through it does serve as a rough surrogate for water availability, many other factors are involved such as soils, geology, and hydrologic parameters, and typically involves expert on-site analysis.
No lands found within identified wildlife corridors or linkage zones should be sold or traded for development. FWP	Trust lands cannot be “set aside” by label or otherwise deed restricted in any manner that would reduce the fair market value of land without compensation to the beneficiaries. Lands that have significant resource values can be “preserved” in a variety of ways, including purchase of development rights, purchase of conservation easements, and certain performance standards for development that would mitigate identified impacts. Conservation opportunities on trust lands are not generally restricted by any of the proposed management alternatives provided the trusts are compensated for the lost “rights”. See also section 2.3.1, 2.10
<i>Transitional Filter</i>	
The model employed by GeoData Services did not consider travel times to community services such as shopping and hospitals. The model used a straight line distance calculation instead. In addition the analysis in development potential failed to take into account variances in different parts of the state. The model should be weighted according to area characteristics. The Sonoran Institute offers a growth management rating system that would identify appropriate lands for development. (See page 16 of their letter.) SI	<p>The summary statement on page 12 of the Sonoran response is correct, “the model utilized by DNRC attempts to identify those state lands most likely to be developed, but stops short of further identifying the parcels most suitable for development. Ms. Hernandez suggested that further research would be needed to identify a subset of developable state trust lands where negative impacts to air and water quality, wildlife populations, local economies, and communities will be minimal.” We are in complete agreement with this statement. The judgment of DNRC planners was that the analysis necessary for a programmatic EIS should include a comparison of all state trust lands in terms of their likelihood of development, and the filtering process is the appropriate process for further identifying parcels most suitable for development. For a statewide programmatic EIS it is an inefficient use of resources to do the background research, data collection, and geospatial statistical analysis on every individual trust land parcel. It makes sense to narrow the scope of that type of analysis to a smaller subset of lands, with detailed predictive analysis of growth in the project level of the funnel filter process.</p> <p>Most residential growth research has involved gravity models and other models that typically work with counties or other relatively large geographic units. Residential growth research involving distance to amenities and distance to services is a relatively recent field of research, and there is a lack of peer reviewed research</p>

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	<p>covering many geographic areas. Combining cadastral parcel databases with census derived demographic analysis is not yet common, partially because of limited data. To our knowledge, Montana is the only state in the Western US with a statewide cadastral ownership layer in standardized digital form for the entire state. In most areas, individual counties, or municipalities each handle private parcel ownership in different ways, some digital, some not. We agree that the two studies we found are probably not indicative of eastern Montana, since they were both conducted in areas with significant topographic relief, adjacent to public lands, with high natural resource amenity values and high population growth. That fact also contributed to the decision to take a descriptive rather than predictive approach for the transitional stage of the programmatic EIS. The thorough database of attributes is available for subsequent project level of the funnel filter process, supplemented by ancillary data and local research.</p> <p>We agree that for local analysis, growth planning, and geospatial analysis on a finer geographic scale than a programmatic statewide assessment, different methods are appropriate and desired. Travel time analysis, local government jurisdictional policies, historic patterns of land use, air and water quality, wildlife habitat, and many additional factors will be needed for such an analysis.</p> <p>A different methodology is needed for state wide programmatic assessment in the transitional stage of the funnel filter process. As stated in the draft EIS:</p> <p><i>The data provided in table @@ shows total acres of state trust land with higher potential to be developed in each DNRC land office. The definition of "higher potential" is a relative term. In this instance it is not the result of a statistical model, but is the lands in the highest class of all state trust lands, by each land office, split into four quantiles, grouped into three classes resulting from summing a series of covariate variables commonly agreed to be related to rural residential development. The data do not reflect or infer causation, they were summarized from variables that have been identified in rural residential development research in Montana as highly correlated. In some instances they may be responsible for growth, but in others they could result from the effects of growth.</i></p> <p>The DNRC Planners gave Geodata Services, Inc. two over-riding rules in developing the data development methodology:</p> <ol style="list-style-type: none"> 1) Consider all DNRC state trust land parcels with a regular and repeatable methodology, using data layers that are consistently available across the state 2) Treat each DNRC Administrative unit as a separate entity

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	<p>We evaluated several methodologies to compare the relative differences in trust land parcels regarding rural residential growth, including Thiessen polygons, travel time zones, sub planning units within DNRC administrative areas such as 6th code watersheds, census blocks and census block groups.</p> <p>Census blocks are the smallest census area, representing the residence of approximately 85 people each, and their shape and size are proportional to where population resides, but in rural situations covering large areas, they are not a desirable unit of analysis for this type of study, since they can include different types of residential development. In addition, census block boundaries split DNRC trust land parcels creating difficulties in assigning part of a parcel to one block and the other part to a different block.</p> <p>Using travel time zones have merit as a unit of analysis with considerable influence on many of the parameters of growth planning. As a unit of analysis DNRC parcels or portions of parcels would be determined by areas inside and outside a drive time of each parcel within a certain threshold. We rejected this approach for methodological reasons for a coarse filter statewide assessment. First, there has not been sufficient fine scale research across the state to determine a consistent drive time threshold. Is their research to justify a 30 minute drive time threshold over a 20 minute or 45 minute drive? Second, the only consistent statewide road layer is at 1:100,000 scale derived originally from Census Tiger files and commercially enhanced. While this digital layer captures federal and state highways and most county roads, many roads in rural areas, high growth areas and private roads are not available, which would render travel time zones derived from roads inconsistent in accuracy. There is also no road attribution except for the highway designation and surface type. Seasonal accessibility and speed limits are also not available. Third, many individual trust land parcels are inaccessible by road and would be excluded from analysis with this method. An alternative method of determining travel time, modifying straight Euclidian distance with weighted distance, using topographic slope as the weighting would create an analysis surface with relative values that would modify distance from the parcel, making it higher in areas crossing steeper slopes emulating travel time. Either method would still require a sphere of influence (or “neighborhood”) around each DNRC parcel. In the example provided by Ms. Hernandez in Figure 2, it appears that there are approximately six contiguous polygons encompassing approximately 80 parcels. Using her recommended method, all measured variables would be the same for the multiple trust land parcels inside of each of the six polygons, including all 14 variables measured for Dr Jackson with no influence from travel time, such as housing densities, average year residence</p>

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	<p>built, assessment value, and household growth predictions. Internal variability within these large sinuous polygons would be ignored. Four of the 37 total variables measured in our analysis were directly influenced by drive times. A second major reason we rejected travel time zones was the constraint of considering each land office as a separate entity for analysis. The DNRC Administrative units follow county lines for the most part, with occasional exceptions. These boundaries often do not follow natural features, nor do they adhere to travel influence zones. An area in the Ninemile valley north of Missoula, for instance is administered by the Northwest Land Office, though it is clearly in the Southwest Land Office travel time zone.</p> <p>We also considered grouping trust land parcels into larger groups of contiguous parcels with similar characteristics, then defining neighborhoods or spheres of influence around those. We did include a measure of contiguity in the database, state trust land parcels that were in contiguous blocks were identified for future analysis by dissolving the polygon coverage and determining which resulting parcels were larger than 660 acres (640 acres plus 20 acres to account for section anomalies). Parcels that are contiguous only on one corner, i.e. checkerboard ownership, were not considered contiguous. No matter how parcels are grouped into neighborhoods, all the methods we examined, except Thiessen polygons, involved some level of subjective judgment for grouping trust land parcels. In the final analysis, we selected Thiessen polygons around every trust land parcel as the preferred method. There are weaknesses in this method as well, but it was the method that most fairly assessed all parcels individually, and could make use of available statewide data in an equitable fashion.</p> <p>Use of travel time analysis as a measure of distance to hospitals, airports and shopping centers has merit over Euclidian distance used in the simple additive model. Though we do not agree that travel time areas are as useful for delineating neighborhoods or spheres of influence for all DNRC parcels, we do agree that using drive time for these three variables would increase the accuracy of the comparison of parcels. The differences would be minor overall, since only 3 of the 37 variables we measured would be improved by using this method of analysis, and as suggested, the influence of this type of measurement is primarily important in mountainous terrain. Statewide, we estimate that the effect or redoing these variables would have negligible effect on which trust land parcels would move from one quantile class to another.</p> <p>The Sonoran comment, on page 13 states, "Within neighborhoods, calculations should be independent of area. For example, surrounding housing density should be measured rather than number</p>

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	<p>of households.” Any density measurement of housing cannot, by definition be independent of area, since density is defined as the amount per unit size. We measured both count and density for each Thiessen polygon “neighborhood” for each trust parcel to provide data for Dr. Jackson’s regression analysis of residential growth. A total count of “residences” was completed for each area. Residences were derived as the central point or centroid of any cadastral land parcel with a residence recorded on it. We also calculated housing density per acre for each parcel and averaging those for all centroids in each Thiessen polygon. Density measures were used in Dr. Jackson’s analysis and count was used in the final additive variable used in quantile grouping. Both are available in the database for project level analysis in the funnel filter process, or in alternative quantile groupings with different variables.</p> <p>On the same page of comments (p 13) we agree with the statement that “drivers of growth should be represented as continuous variables rather than categorized into high, medium, and low classes”. That is why we maintained all the original continuous variables, in addition to the quantile measurements. For instance, during DNRC planning meetings, we used the CommunityViz software program (A “What if” program to compare alternative scenarios) to compare multiple combinations of variables in descriptive quantiles. The quantiles provide an objective descriptive statistic of relative difference in rural residential growth for the local area surrounding each trust land parcel. The original continuous variables are in the database for predictive modeling of project areas in the steps of the funnel filter process following the transitional lands phase, and they are available in a public domain database and GIS layer for regional and landscape predictive models if agencies or academics are interested in further research in this area.</p> <p>The Sonoran comments (page 15) suggest a random sample of private land parcels should be used to calibrate the model of development potential, growth should be quantified from CAMA records, general linear models developed, and part of the sample should be reserved for model calibration. The essence of this suggestion were accomplished in the analysis for the programmatic EIS. For each Thiessen polygon we derived the following variables for every trust land parcel from the cadastral database, commercial demographic data by block group and ancillary layers.</p> <ul style="list-style-type: none"> • Average year residence built • Average year residence remodeled • Average effective year for residence • Average Total Land Value for residence • Count of parcels with a residence in each Thiessen polygon

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	<ul style="list-style-type: none"> • Average housing density/acre based on residence parcel size • Average Total Land Value for commercial parcels • Count of commercial parcels in Thiessen polygon • Average Total Land Value for industrial parcels • Count of industrial parcels in Thiessen polygon • Household difference from 1990 to 2000 • Household difference from 2003 to 2008 • Annual rate – household difference 1990 to 2000 • Annual rate – household difference 2003 to 2008 <p>Jackson used variables similar to some of these in the models reported in Appendix D for growth modeling. We did not see a need to sample the statewide cadastral data, since we had complete data on the entire population, and since by using Thiessen polygons we were covering the entire area of the state with neighborhood assignments. Also, as already stated, the analysis and research required for detailed growth studies is more appropriate in a project level of the funnel filter stage of the process. We do not believe that adequate data exists across the diverse geography of Montana to develop a generalized linear model to predict growth at the parcel level of geography. A process similar to that suggested by Ms. Hernandez was done in the Bitterroot study we examined. They evaluated several model methodologies and assessed model accuracy by holding out 25% of the parcel data. The model with the best fit only increased their predictive capability from 50% to approximately 55%. Other methodology issues factor in to this type of analysis. The cadastral layer and CAMA database include the year the property was built, and an “effective year” providing an adjustment to account for maintenance, upkeep and remodeling. These records are for a single slice in time. The data is not clean, there are a number of records with questionable year of development values, based on a number of factors, such as the assessment method, experience of the assessor, previous records, data entry errors and other factors. Other issues and complexities complicate the use of CAMA for examining land use change. For instance, an older house on site for 70years and then demolished and a new home built would show as a recent development in the year built field. For this study we used mobile homes and dwellings, but left vacant homes and the “other” category out of the analysis. We assumed for the purposes of this study one residence per parcel, when in reality many homes have two residences, converted garages, basement apartments, etc. Apartments are coded in the commercial CAMA database, not the residential. Though CAMA data can serve as a rough surrogate for land use change, at least the landscape pattern of when residences were constructed, they do not track true development patterns and spatial distribution of developments, parcel additions and splits, etc.</p>

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	An annual archive of the complete cadastral layer on a semi-annual basis does show promise for the future for these type of studies.
Rural residential development may not be appropriate anywhere in Montana given the cost of providing services. This type of development is fundamentally unsustainable, fiscally and environmentally, and should be discouraged. (ref: Table 2-6) BP	The REMB will work within the framework of MEPA as well as local land use policies and regulations in evaluating the suitability of sites for residential development. For example, rural lands in close proximity to urban areas may be suitable for development based on their proximity to existing infrastructure and distance to services. Lands that may not be suitable for development due to high costs of services would continue to be managed for historical uses that may include grazing, agriculture, timber, or minerals. Alternative D was designed to clearly define regulatory relationships with local jurisdictions and to identify desired outcome objectives for REMB projects. See also sections 2.6.6, 2.10, 2.11
<i>Market Filter</i>	
Is the “fair share” approach in the best interest of the Trust? Rather, the REMB should consider a more focused analysis of real estate data and “absorption” rates to determine its share of market. Polzin’s study failed to relate economic trends in Montana to land markets and real estate values. The MLS and Clark Wheeler data bases should be consulted for information on land sales. SI	<p>Actually Jackson, not Polzin, was responsible for forecasting future land prices. Jackson used Department of Revenue land values. The Department of Revenue (DOR) collects transactions from both MLS (multiple listing real estate sales) and from real estate transactions that were not sold by MLS realtors. It further verifies MLS data and then applies the broader and verified data to all taxable lands in the state using transactions evidence appraisal techniques. Land appraisers such as Mr. Wheeler typically use a few “comparable” transactions in their appraisal work. This study had at its disposable the tax information on all taxable land in the state. The DOR data was used to develop empirical relationships between population, and income at the county level the number of acres in commercial, industrial, and residential uses and the number of acres in the commercial, industrial and residential uses in each county. Mr. Clark Wheeler operates an appraisal and real estate sales business with offices in Bozeman and Missoula. He utilizes both MLS data and proprietary data in making land appraisals. Typically appraisals are on a parcel by parcel basis rather than a mass appraisal study such as this. Mr. Wheeler does not make his proprietary information available to the public. Furthermore it is impossible to determine how much commercial, industrial or residential land of any size is located in any county or land office using either Mr. Wheeler’s proprietary data or MLS data. Without the Department of Revenue data, it would be impossible to ascertain recent land ownership patterns much less forecast future ones.</p> <p>Using large amounts of data, variation in land ownership patterns and land prices were first analyzed. These variations were then coupled with projections of population and income to project future</p>

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	land ownership patterns and prices. The analysis was conducted by one of the foremost economists in the region.
The Polzin study fails to analyze non-labor income and it uses per capita income rather than earnings per job in its analysis, therefore misrepresenting how the average working individual is faring. The PEIS should discuss the role of dividends, interest and rent (non labor income) in the growth of personal income in the state. SI	<p>Economic conditions in the DNRC Land Office Regions were analyzed using established procedures and reliable data. Per capita personal income is the most widely used measure of general economic well-being, and was reported for each DNRC Land Office Region. Evidence of the wide acceptance of per capita income is as follows:</p> <p>The U.S. Bureau of Economic Analysis routinely reports per capita personal income for all the spatial areas for which it published data. //niip.wsu.edu (the most wide used regional economic data site in the Northwest) includes analyses of per capita income. BEARFACTS (the standardized regional analysis program of the U.S. Bureau of Economic Analysis) includes a major section concerning per capita income.</p> <p>The regional economic forecasts prepared by Woods and Poole Inc. and the National Planning Association (NPA) include per capita income as an important local indicator.</p> <p>Average earnings per job is not reported or analyzed by any of the above-mentioned standard regional economic sources. Average earnings per job must be calculated from the regional economic data provided by the U.S. Bureau of Economic Analysis. Average earnings per job are not a good measure of how the “average resident” is faring because they explicitly excludes those who do not have a job.</p> <p>Average earnings per job (after correcting for inflation) have been roughly stable in Montana since the mid 1980s. The diverging trends between average real earnings per job (stable) and real per capita income (rising) are explained by the increasing ratio of jobs to population. This ratio has continuously increased in Montana and elsewhere in the nation as a result of a variety of economic and demographic factors, such as the post war baby boom and increased female labor force participation. The Montana trends in the jobs-to-population ration follow the U.S. trends almost exactly.</p> <p>Non-labor income (transfer payments and dividends, interest and rents) does not provide reliable explanations of economic trends in Montana or any DNRC Land Office Region. Non-labor income’s share of Montana’s total personal income has been stable since the mid 1980s. There was an increase in this share during the late 1970 and early 1980s, but the Montana trends closely parallel those of the U.S. This suggests national factors (such as changes in Social Security legislation and the wider availability of investment vehicles) were the primary cause.</p>

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	<p>When people apply for mortgages, lenders use all income sources as well as savings in making load decisions. Per capita income is perhaps the most common demand variable other than price used in econometric analysis.</p>
<p>Polzin distorts the notion of “basic” industries and does not include services in the basic industry definition, even though services are the fastest growing industry in Montana. SI</p>	<p>The basic industries in each DNRC Land Office Region were identified using the method developed by the U.S. Bureau of Economic Analysis.¹ This method incorporates a combination of industry characteristics and industry analyses to classify each industry into basic and derivative categories. The basic sector identified in this manner has been statistically tested and found to be the major determinant of economic trends in the state of Montana and its major communities.</p> <p>This statistical analysis was replicated for each DNRC Land Office Region, and the same conclusions were reached. Changes in the regions’ basic sectors explained changes in the derivative sectors. This is a particularly strong research conclusion because the DNRC Land Office Regions are multi-county administrative areas, not functional economic regions.</p> <p>Non-labor income is not related to economic trends at either the state, county or multi-county regional level. Changes in non-labor income were not significantly correlated to changes the derivative sector for Montana, the state’s major communities, or any of the DNRC Land Office Regions.</p>
<p>The PEIS should discuss the role of dividends, interest and rent (non labor income) in the growth of personal income in the state. SI</p>	<p>When people apply for mortgages, lenders use all income sources as well as savings in making load decisions. Per capita income is perhaps the most common demand variable other than price used in econometric analysis</p>
<p>The PEIS should state that conservation of a portion of trust lands will not necessarily lead to reduced rates of return. SI</p>	<p>The economic analysis (Appendix D) suggests that a lower rate of return would be realized if conservation is a priority as described for Alternatives B-1 and C-1. The PEIS envisions the development over several years of at the most about 00.7% of the total trust land management land base. There has never been a proposal to convert massive amounts of land. Many of the reasons that are presented regarding reasons not to develop certain parcels are no doubt true. These site-specific factors are best examined in a project specific environmental analysis.</p>

¹ U.S. Department of Commerce. Bureau of Economic Analysis. 1995. BEA Regional Projections to 2045: Vol. 1. States. Washington, DC: U.S. Government Printing Office.

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DNRC should consider alternative disposition strategies, which could produce better returns to the trust mission. SI	Specific proposals with better returns to the trust would be welcomed. Real estate markets primarily drive rates of return for residential, commercial, industrial, and conservation uses. DNRC will network in various real estate organizations, western states conferences and institutions to be informed and proactive in new ideas and concepts.
Jackson's study of development is limited to a range of one house per acre to one house per 25 acres. His analysis excludes other possible development scenarios such as clusters. SI	The PEIS was concerned with examining how reallocation of state land currently devoted primarily to either agricultural or forest uses might influence the returns to the trust. In doing this analysts examined three kinds of land uses (commercial, residential and industrial). After examining patterns of state land ownership, it was decided to examine the quantity and value of lands which might be referred to as "rural residential". The State does not own a lot of urban land. If these lands are sold or leased, the DNRC does not anticipate limiting the residential use to ownerships in the 1 to 25 acre size range. These lands could be developed at urban densities. The 1 to 25 acre ownership category is one of the most rapidly expanding land uses in many areas of Montana. The values of this land use category are important in helping define rural residential land markets and values. Thus the 1 to 25 acre category was used to help focus the demand for land and its value. It would be inappropriate to sell a large block of land that could be developed for rural residential acreages (1 to 25 acres in size) at a value lower than the market value of the land in its highest use value. That is why the 1 to 25 acre category was used in the analysis. In fact, the Department of Revenue appraises apartment houses as commercial uses. Since we used their definitions of use, we expect residential multifamily development to continue to take place on "commercial lands".
The proportional share of growth approach assumes that the DNRC will always be equally well positioned for development in all of its land office areas (in comparison to private land.) However, it may not always be in the best interest of the TMLD if the returns are not equal in every area. SI	<p>Not all trust lands may be equally positioned in all land office areas for new growth. The funnel filter process will help to define those lands that could be suitable for development. For this and other reasons, some land office areas may have different rates of development and the Project selection process (Figure 2-5) would help to prioritize project opportunities and necessary staff support and budget on a state-wide basis. Revenue generation would be considered in the selection.</p> <p>Tables 2-8 through 2-16 indicate that growth in residential, commercial and industrial uses will be very modest in the Northeastern and Eastern Land Offices. The projected growth in these areas is a function of land location as well as to overall growth, which is expected to be very minimal. However, in areas of higher growth, such as in the region included in Northwestern Land Office,</p>

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	growth in residential, commercial and industrial uses on Trust lands is expected to be higher, based on overall growth patterns in that area of the state and the location of Trust parcels.
<i>Physical Suitability Filter</i>	
Local facility plans should be mentioned in Section 2.3.1.7, page 2-20. BP	Agreed
Financial aspects of infrastructure improvements should be mentioned. The REMB or its developers will be responsible for these improvements, not local communities. BP	The rates of return analyses conclude that improved land entitlements that may require some expenditure by DNRC improve land values and generate a higher rate of return to the trusts. Land valuations are based upon appraisals and if the developer is required to extend all infrastructure to a particular site, then the valuation would be based on the raw value of the land. If the infrastructure is already in place, then the land would be valued as if improved. Regardless, the trusts would be compensated for the actual value of the land. If infrastructure is required, it would be a general policy to require those costs to be borne by the lessee. However, under Alternatives B through D, DNRC may be more proactive in securing improved entitlements to land, which may include extension of infrastructure. This would help market the property and secure a higher return to the trust. See also sections 2.3.1, 2.6, 2.9.7, 2.10
<i>Project Filter</i>	
The remaining filters in the funnel lack an overall philosophy for their application. The Sonoran Institute suggests “guiding principles” for project review, e.g., “anticipated tax revenues associated with development should pay for associated infrastructure”. The REMB would also, as a guiding principle, work to avoid, minimize or mitigate environmental impacts and would participate in local land use planning activities. SI	The funnel filter is a guiding principal. It begins with a filter that suggests steep slopes or lands, wetlands and certain types of critical habitat are not generally suitable for most types of developed uses. Another key principal is that all land use proposals will be subject to local land use regulations (zoning, subdivision, annexation) as applicable. All projects would also remain subject to the Montana Environmental Policy Act. All filters provide similar principals that guide the decision-making process for DNRC. See also sections 2.3.1, 2.10
<i>Economic and Community Issues</i>	

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The analysis of impacts is currently based on the Polzin and Jackson studies. These analyses should be re-calculated and the project Trust share of development should be revised accordingly. SI	The studies are accurate fore the assumptions stated in the EIS. Alternative D was designed to provide the necessary flexibility to track actually market growth as opposed to achieving particular acreage goals. See also sections 2.3.1, 2.6, 2.10
The Trust should look at the relationship of its equity to the cost of administration and in relationship to its income (see discussion on page 24-26 of the letter). What is the rationale for calculating rates of return described in this study. SI	<p>The DNRC intends to use a rate of return calculation that is consistent and comparable with the method they currently use in reports to the Montana Legislature. That method shows the earnings from assets as a percentage of the asset value. One of the requirements of this study was that it be consistent with that method so that the DNRC could legitimately report how land development programs would compare with current uses. That is the essential reason that the calculations were made in the manor shown in the study. Typically the rates of return are shown for existing uses thus the term the "experienced rate of return". These calculations are "what if" calculations. What would the experienced rate of return be with reallocation? They were calculated with asset values (the denominator) in the developed use. Had the denominator used the estimated value of land in current uses (grazing, forest and crops) the calculated rates of return would have been considerably higher. They are also conservative in other important regards. The notion of the Department of Revenue values being lagged from current markets was mentioned in another response. In addition, the land values were average values for a land office. In spite of the conservative nature of these estimates, the calculated rates of return are, are considerably higher than agricultural and forest uses. This method is well known in economic theory and analysis.</p> <p>It is also true that the rate of return increases with the level of development. The earnings of the trust fund are a matter of public record as are the income from sales and leases as well as the agency's budget. Further, revenue calculations actually assume a mix of sales versus leases. Some discussion was given to the notion of sales versus leases in the response to an earlier comment. The model also includes the sale of conservation leases.</p>
The PEIS lacks a comparative analysis of different land transactions with regard to their impacts on revenue in the short and long term (lease vs. sale). SI	Some clarification needs to be made between assumptions useful in doing the analysis versus policy. The planning team made some <i>assumptions</i> about the mix of real estate sales versus real estate leases. For example, the planning team assumed that land developed for residential uses would more likely be sold than leased. The DNRC is not tied to these assumed proportions. These assumptions were necessary in order to calculate revenue flows. The DNRC is proposing a sale priority in the residential use category and a lease priority in commercial or industrial uses.

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	<p>From a purely financial standpoint it is very difficult, if not impossible, to reach conclusions about whether leases or sales contribute most favorably to the trust fund mission. This difficulty warrants some discussion. Under state policy, leased properties are periodically reappraised to the then (new) market values. Lease values remain effective until the next regular (periodic) appraisal. During periods of comparatively high price inflation, the rapidly dwindling purchasing power of money effectively reduces the actual (real after inflation) earnings from the leased property. When inflation is comparatively low, the costs of inflation to trust earnings are far less consequential. As a result, land sales fare better when there is high inflation and leases provide better returns during low periods of inflation. It is impossible to accurately forecast the rate of inflation over the next 25 or so years.</p>
<p>Polzin uses the Montana Department of Revenue data for real estate valuations. These typically differ from actual market prices. SI</p>	<p>Some of this is covered in the previous comment. However, it is true that the Department of Revenue appraisals are typically lagged behind the real estate market. The same is true where land appraisers use earlier comparable sales and the problem can be rather exacerbated in the kinds of real estate markets like some Montana communities have experienced in the past 18 months or so. Considerable thought was given to adjusting the DOR appraisals for recent market conditions. However there has also been a considerable amount of popular press writing concerning possible real estate market meltdowns. Jackson ultimately decided not to recalibrate DOR prices. The reason is rather simple. State policy makers are concerned with reallocating lands. <i>Any recalibration of real estate prices would apply to all of the PEIS alternatives. It would increase the rate of return of each and not the ranking of the alternatives.</i> All of the alternatives are expected to earn considerably higher rates of return than forest or agricultural uses. The choice to not recalibrate suggests that the calculated rates of return are somewhat conservative.</p>
<p>An increase in taxes is cited in the document as a positive result of development on state lands. However, increased taxes are not always adequate to cover the cost of services and infrastructure. SI</p>	<p>Private developers will pay their share of the property tax burden through the beneficial use tax provision of the state's property tax code. In some situations, adding exempt land to the tax roles could be significant to a local community, such as Section 36 in Kalispell. The test of whether development pays its own way is the responsibility of the local reviewing authority. Tax revenues are spent to meet the expanding wants and desires of a growing population. These phenomena are occurring in many of the growing areas of Montana. Indeed, the purpose of this study is to identify important sources of revenue to meet the growing school budgets in Montana. It is true that the sign of changes in tax revenues is positive. No other value was intended.</p>

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The PEIS does not address the extent to which beneficial use taxes will compensate local governments for services provided. A more detailed analysis is needed regarding the fiscal impact of beneficial use taxes. BP	<p>Beneficial use taxes are derived through the normal property tax appraisal process. What distinguishes beneficial use taxes from regular property taxes is the <i>taxpayer</i>. The owner of the property pays property taxes while lessees of exempt property pay beneficial use taxes.</p> <p>Per 3.4.5.1 in the draft EIS, “lessees pay a beneficial use tax on real and personal property used in their trade or business per 15-24-1203, MCA. The REMB works with lessees, the Montana Department of Revenue and local taxing jurisdictions to assure compliance. As a result, local communities benefit from taxes associated with commercial and industrial uses on land that is otherwise exempt from property taxation. In addition, commercial and industrial lessees would be subject to fees and assessments for specific improvements and services. Residential lessees on Trust Lands are subject to personal property taxes on non-permanent residential properties including recreational cabins and trailers. In certain cases, they may also be subject to special assessments for area improvements and services.”</p>
With respect to Section 36, it appears that state lands are subject to a different tax appraisal process. The appraisal method in relationship to the taxing of beneficial uses requires additional analysis. There should not “false economic growth” that results in the destabilization of the tax base. BF	State-owned lands are typically exempt from most taxes. However, if state property is put to a beneficial use for commercial or industrial purposes, then the leased property is taxed for the land and improvements in the same fashion as if private.
Developments on state lands are competing with private land owners for federal and state subsidized assistance (for infrastructure, etc.). The state does not pay federal and state taxes, yet they receive these benefits. BF	Private commercial, industrial and residential lessees on state trust lands are subject to local, state and federal taxes on property and income and therefore contribute to various programs that support community and economic development related activities. Development on state trust lands would be subject to the same regulatory rules applicable to private lands, including Impact fees, special improvement district taxes, etc. See also section 2.10
Clarification is needed on how local impact fees will be applied to state lands. BF	In areas where local impact fees are imposed, developers of Trust Lands will be responsible for paying those fees. In addition, developers of Trust Lands will be responsible for paying beneficial use taxes as well as any special fees, bond payments and/ or assessments
Developers on state lands should pay for both on-site	Developers of Trust land will pay for on-site and off-site services as any private land developer would, based on their share of the benefit

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and off-site services. SG, MEIC	as calculated by the taxing authority.
The PEIS does not provide for the development of relationships with local and state efforts in the development of affordable housing and economic development in general. BF	The PEIS does not address any specific type of residential, commercial or industrial development, nor does it exclude any from consideration including affordable housing. As each area land office works with local governments in their area, specific community needs, such as those associated with housing will be considered in planning for uses on Trust lands.
The PEIS does not provide linkages to other proclaimed community goals and associated plans for transportation, affordable housing, economic development, land use and neighborhoods. BF	One of the stated objectives of the PEIS is “to develop ways to work more closely with local government processes and policies” (E-5). In 3.2.6.1 the EIS indicates that the REMB will develop projects with respect to local land use regulation and within the context of local growth policies. Further, in 5.2, the PEIS states that “the REMB of DNRC would comply with all applicable city, county, state, and federal laws. These include local land use regulations. ...The items to be addressed and the level of analysis would vary, depending on the nature of the project, its geographic location and the particular economic, social and environmental context in which it occurs. In general, however, the REMB would develop programs and actions in consideration of the goals and policies of the local growth policy as applicable.” See also section 2.10
A task force of interested state agencies involved in infrastructure development could assist in developing partnerships and funding sources to achieve community goals in the development of state lands, i.e., affordable housing. SG, MEIC	The DNRC, through the Conservation and Resource Development Division address and fund community water and sewer infrastructure needs. In addition, the DNRC works with other state and federal agencies to address infrastructure needs with respect to a variety of programs and funding sources.
The PEIS should direct the REMB to work with local governments in planning future infrastructure to assure that the DNRC will “pay its own way”. (ref: 3.4.4.2) SG, MEIC	As noted in 3.4.4.2, “The REMB intends to evaluate the availability and accessibility of infrastructure as part of the overall project selection funnel process (see Chapter 2). Projects that are designed to take advantage of existing infrastructure capacity are likely to be more feasible. In addition, in those cases where the Bureau works with a developer in preparing a site for a specific use, additional, new infrastructure may be required for project implementation. Generally, it will be the responsibility of the developer and/or the community as a whole to provide the necessary infrastructure.”
Section 3.4.5.1 should address the public cost of providing services as part of the income calculation. SG,	Developers of Trust land will pay for on-site and off-site services as any private land developer would, based on their share of the benefit as calculated by the taxing authority

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GIS growth projections should show how land uses in Montana are projected to grow (ref: 4.1.2) SG, MEIC	<p>Many factors affect land use growth predictions. We limited this analysis to residential and commercial growth. Adding all the other jurisdictional issues, and uncertainty of natural resource policies complicate matters, and make it unreasonable to accomplish such predictions for all trust lands at the parcel layer. This type of analysis is more appropriate in the project level of the funnel filter process for a small subset of trust land parcels that will be developed in the future. There are also data deficiencies in doing this on a statewide basis. The first step in such an analysis would be a digital map of surface and subsurface ownership. A surface ownership map of public lands was developed by several federal and state agencies under the leadership of the BLM approximately 10 years ago. Some updates on specific stewardship layers are made annually by NRIS at the Montana State Library but no standardized update is conducted on ownership. Some attempts are underway to correlate and cross check the public ownership map against the cadastral parcel layer maintained by the Department of Administration and Department of Revenue. If and when this is completed, it still will only show ownership, not land use. The second hypothetical step would be to compare different standardized land use maps over time to establish historical differences and make some assumptions about the future.</p> <p>At a coarser geographic scale, counties and DNRC land office areas, land use growth predictions were part of the analysis. Jackson utilized Polzin's forecasts of population and income to forecast growth in land uses.</p>
Table 4-2 does not compare population growth to growth in land used and where that land will be located. The relationship between growth and land use should be more strongly linked. This information, in turn, should be made available to local governments. SG, MEIC	The analysis was performed on a region-wide basis to correspond to DNRC administrative regions. An assumption is made that the growth shown in table 4-2 will occur but the actually location cannot be predicted 20 plus years into the future. The funnel system is a method of defining land suitability through a variety of performance based criteria.
The PEIS falsely states that economic conditions will not be adversely affected by the development of state lands. Inappropriate development could spur sprawl, negatively impact downtowns, destroy viewsheds, etc. (ref. 4.2.1.2)	Under the PEIS, the REMB would work closely with local governments in addressing potential impacts with respect to local land use regulation and growth policies. Each growth policy reflects local values regarding issues such as sprawl, downtown revitalization and aesthetics. Growth policy goals and objectives are realized through the adoption of local programs and ordinances. The <i>Physical Suitability</i> Filter and the <i>Regulation</i> Filter (2.3.1.7) specifically address such issues as infrastructure and community values that are reflected

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SG, MEIC	through locally adopted growth policies. In addition to local land use policy and regulatory considerations, REMB projects will be subject to evaluation under MEPA and the Montana Antiquities Act. In addition, Alternative D was designed to help achieve desired outcome objectives for development on state trust lands. See also sections 2.6.6, 2.10. 2.11
The notion that Trust Lands would capture a direct proportion of shared local growth is flawed in that it does not address location, which is the single largest factor driving development (ref: 2.3.1.4), BP	Noted. Location is an important factor. The transition lands funnel attempted to define lands that may be highly suitable for development based upon such considerations as location relative to new growth. In addition, the growth projections tend to be highly conservative since the growth estimates are averaged over an entire land office, that often includes both high growth and slow growth counties. The share of development may be localized to a particular growth area in a larger regional setting. A monitoring program is proposed to help test the EIS assumptions and to adjust assumptions and implementation as appropriate. Under Alternatives C and D, in particular, DNRC would be more proactive to adjust project opportunities to those locations with favorable markets and with favorable locational attributes. In some situations, DNRC may buy into growing markets where trust lands are not well positioned. See also sections 2.3 and 2.6
Section 2.6.1.8 states that no jobs would actually be created because the DNRC is sharing in growth, while 2.6.1.8 does address this more correctly. BP	See sections as amended
The development of rural residential uses on state land typically does not pay its own way when it comes to property taxes collected versus the cost of services provided. (ref: 4.2.16, page 4-52) BP	The <i>Physical Suitability</i> Filter (2.3.1.7) “considers the proximity and availability of infrastructure to Trust Lands and serves as an added indicator to the suitability of land for future use and development. The relationship of infrastructure to Trust Lands would be a project level evaluation. Conditions of infrastructure availability and/or feasibility to extend can change dramatically as communities grow and expand. The transitional filter considers some elements of “infrastructure” when identifying growth opportunities but detailed evaluations are only possible on a project level basis.” DNRC would largely rely on local government review processes to determine the benefit of a particular project to the community.
Costs of government services associated with residential development of state trust lands should be considered. FWP	Noted. All new residential development proposals would be subject to local review and approval. Subdivision review would include consideration of “costs to local services”.
The cumulative impacts to broader sectors of the	The purpose identified for state trust land in the Enabling Act of 1889, as amended is “for the support of” the beneficiaries. No other

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economy require examination. For example, the economic analyses of the Thompson/Fisher conservation easement included the economic impacts of development vs. conservation and concluded that the two competing scenarios were essentially equal in terms of overall regional economic activity. However, from an equity or distributive standpoint, it concluded that the main public beneficiaries of development would be a limited number of homeowners, while the beneficiaries of conservation would be several thousand hunters, anglers and outdoor recreationists. FWP	purpose is provided that would broaden the mission of the Trust Lands Division of DNRC. The federal courts have supported this position in <u>Lassen vs. Arizona Highway Department</u> . This very specific purpose limits the ability of the Department and Real Estate Bureau to consider broader social goals or in making secondary economic benefits a primary consideration in developing programs on Montana school trust lands. This is not to infer that the program managers of trust lands do not consider other benefits when looking at specific projects, this is always a consideration and if the additional public benefits do not reduce trust benefits, the alternative with the highest public benefits is chosen. However, basing an alternative on these secondary benefits would not be consistent with the Enabling Act objective of using the trust lands to provide "support" to the beneficiaries.
Evaluate the impacts of real estate development on public recreational opportunities. Many Trust lands provide public access for recreational opportunities including hunting, fishing, and trapping. With the passage of SB 130 and entering into a 10 year agreement with DNRC, FWP has agreed to pay DNRC \$2.00/licensee for access to Trust lands for hunting, fishing and trapping. Implicit in that agreement, and explicit in DNRC's rationale for promoting the bill and agreement, the level of opportunity available today (i.e. the quantity and quality of fish, game, recreational opportunity, etc.) is "worth" \$2.00 per person. Given	<p>Language in SB 130 recognized that DNRC authorized the public use of state trust land through individual recreational use licenses; and the primary use of state trust lands were for hunting and fishing; and DNRC and DFWP wish to provide a more efficient system for authorizing public recreational use for hunting, fishing and trapping on state trust lands and concurrently provide a greater benefit to the institutional beneficiaries of the trust. As a result of SB 130, a \$2.00 fee was added to the Conservation License sold by DFWP as a mechanism to provide a more efficient means to compensate the trusts for the recreational uses of hunting, fishing, and trapping.</p> <p>If trust lands are not managed and considered for development as communities grow, some trust lands will become surrounded by development eliminating hunting and trapping opportunities. As a result the net loss of recreational opportunities would occur whether or not state trust lands are developed or not.</p> <p>Less than 1% of the state trust lands would be converted to commercial, residential or industrial</p>

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that, it is reasonable to argue that if DNRC subdivides or otherwise degrades the quality of the habitat, thus reducing the "value" of use of Trust lands for the uses FWP compensates the Trust, then it is reasonable to expect that recreationists and FWP should not have to pay as much in the future for public access. Conversely, if DNRC takes steps to enhance the quality of hunting or fishing on Trust lands, the "value" could rise. Subdivision and/or development of Trust lands in a way that has adverse impacts on access and wildlife can reduce the income generating potential of those lands through recreation. FWP	uses under any of the proposed alternatives. DNRC estimates that 96% of the 5.2 million acres are available for recreational use.
<i>Natural Resource Issues</i>	
Subdivision and land development are the single greatest threat to fish and wildlife resources. The impacts associated with these developments go far beyond the location of the actual development FWP	The EIS demonstrates that the population of Montana will continue to increase, especially in the central and western portions of the state (see Table 4-1). This growth can be expected to impact fish and wildlife resources to varying degrees and is not limited to just trust lands. The EIS further clarifies how many acres of trust land might be sharing in this expected growth. In all land office regions, the percentage of trust lands to other land ownerships is small (3.1% to 6.2%, Table 2-2) and the percentage that may actually be developed is even smaller. For example, the NWLO is expected to have the highest demand for new growth (see Table 4-2 and 4-3) but the mid range estimate of growth on trust lands is between 2,718 and 13,536 acres through the year 2025, representing less than 4% of the Trust land acreage under the latter situation and less than 0.1% of the total land area in the NWLO. It should also be recognized that almost 63% of the NWLO is in federal ownership which has a high priority for fish and wildlife management. Another factor to consider is that in some situations, trust lands may be more suitable for development than other lands and may actually be beneficial in terms of minimizing sprawl and other detrimental land use patterns. The proposed land selection process (funnel filter) and project selection

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	process are intended to identify lands that have high suitability for development, which includes limiting development of sensitive lands.
The impact of taking lands out of traditional resource use, including the loss of associated public recreational opportunities, and converting them to limited private use should be considered. FWP	As suggested in previous responses, developed real estate uses on trust lands are expected to remain a small percentage of the total trust land portfolio. Impacts to recreation and historical uses would be evaluated on a project level basis.
Reconsider your analysis that concludes that all alternatives would have similar levels of impact on the state fisheries resource. You assume that “developers of residential lands would be required to comply with applicable regulations and requirements pertaining to control of sediment, storm water runoff control during construction of residential properties and use best management practices.” A good example of why this is not a safe assumption is the rural residential development on Plum Creek lands in western Montana. This rural residential development has involved large tract sales that are exempt from all but minor subdivision reviews. Individually, these projects may have relatively minor impacts to local water quality, but your DPEIS documents up to 23,000 acres of new rural residential development on DNRC land. Such development may result in clearing of streamside trees and brush that could have severe consequences to fisheries habitat values, but which is	<p>DNRC maintains that the levels of impact would be similar among the alternatives for this programmatic plan. A project level analysis would be required for all actions implemented under this plan.</p> <p>Compliance with best management practices (BMPs) and SMZ rules would apply to all water adjacent projects. No developed uses are suggested for areas located within a floodplain or adjacent to core bull trout streams (section 2.3.1)</p> <p>A project level assessment would be completed on a project by project basis to determine the level of impacts. As part of the MEPA process, public comments would be sought and concerns addressed.</p>

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also exempt from Montana SMZ law. FWP	
<i>Land Use</i>	
The PEIS should adopt the following approach to development: Lands adjacent to urban areas should be developed to urban densities and connected to existing street systems. Rural lands should be developed using clusters, protecting 60% of the land in perpetuity or 90% if the lands contain big game wintering range. SG, MEIC	<p>Suggestion noted. The EIS emphasizes the desire to coordinate land use activities with local government. Subdivision review is appropriate to determine extension of services, alignment of roads, density, mitigation of impacts, and so forth.</p> <p>Clustering is an implementation strategy that would be particularly useful for conserving open space. However, this may be only one tool to accomplish community objectives. Local review of projects and MEPA will help define mitigation strategies related to wildlife and other concerns.</p> <p>Alternative D was designed to achieve desired outcome objectives (see section 2.6.6 and 2.10)</p>
Urban areas should be developed before rural areas and cluster development should be employed in rural areas. (ref: 4.1.2). SG, MEIC	<p>The funnel filtration process provides a methodology for local area land offices to select projects that are the most suitable with respect to community goals and environmental concerns. The appropriateness of developing in the urban fringe or using techniques such as cluster development to conserve open space and/or critical habitat requires a detailed evaluation at the project development level. Such approaches can be employed only in the context of local land use policy and regulatory limitations. Alternative D recognizes cluster development as a desirable outcome objective Section 2.6.6).</p>
The PEIS should direct land area offices to provide assistance and resources to local land use and capital improvements planning in order to expedite the identification of appropriate development of state lands while protecting the community and maximizing revenue generating potential in the long term. This is particularly important for lands that have a high probability of being developed. (Ref: 2.9.4.2, 3.4.4.2, 4.2.4 and 4.2.15.2) SG, MEIC	<p>The <i>Physical Suitability</i> Filter (2.3.1.7) “considers the proximity and availability of infrastructure to Trust Lands and serves as an added indicator to the suitability of land for future use and development. The relationship of infrastructure to Trust Lands would be a project level evaluation. Conditions of infrastructure availability and/or feasibility to extend can change dramatically as communities grow and expand. The transitional filter considers some elements of “infrastructure“ when identifying growth opportunities but detailed evaluations are only possible on a project level basis.” Under alternatives B, B-1, C, C-1 and D, the REMB would work more closely with local governments in addressing infrastructure needs. Resources that the REMB is able to bring a discussion about local infrastructure will vary by land office.</p>

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Section 2.9.3.2 (B and B-1) and 2.9.3.3 (C and C-1) should be changed to state that the REMB will not undermine local land use planning goals for short term profit. Aggressive development should not undermine local land use goals and regulations, other community values or the long term ability to generate revenue for the Trust (ref: 2.9.7.3). SG, MEIC	Alternatives B, B-1, C , C-1 and D offer greater opportunities for the REMB to work closely with local governments to achieve better coordination between local land use goals and Trust land projects. Closer relationships with local governments can help make outcomes more predictable while preserving both the community and the Trust's interests. See also sections 2.9.6, 2.9.7, 2.10
The PEIS assumes that zoning is in place in most Montana communities when in fact many cities and towns and most counties do not have zoning regulations. (ref: 2.3.1.5, page 2-9 and section 4.2.5.2 regarding sedimentation) BP	A survey conducted in 1995 by the Montana Department of Commerce for the "Montana Land Use Planners Directory" indicates that most incorporated cities and towns in the state have adopted zoning regulations. In addition many counties have adopted countywide zoning and most have zoning districts that were created by petition. In some situations, DNRC may choose to establish zoning districts on trust lands. See sections as amended.
Regarding TDRs (transfer of development rights), the PEIS text should clarify whether the sending and receiving areas would be in the same land office area. Further TDRs have only been used in a few specialized situations in Montana and require a certain level of staff expertise. Finally, in the absence of zoning in many jurisdictions, it would be difficult to determine the rights themselves. (ref: 2.3.1.5, page 2-10 and 2.3.1.8, Page 2-23, and section 3.2.4.2, page 3-25) BP	In most situations involving TDRs on trust lands, the state land would be a sending area to encourage conservation opportunities. However, some communities may want trust lands to be receiving areas to promote increased density on trust lands that are well positioned for new growth. In some situations, trust lands may be both the sending and receiving areas. In most situations, any use of TDRs would be accomplished in coordination with local governments who have the staff expertise. See sections as amended.
Commercial uses might include residential uses if considered commercial by the Montana Dept. of	For purposes of plan implementation and accounting towards the estimate of potential development, any use classified by the DOR as "commercial" would be counted against the commercial growth estimates. This would include such uses as "apartments", even

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Revenue (ref: 2.3.1.5, page 2-12) BP	though local land use regulations would consider this use to be high density residential.
Residential and commercial categories are also subject to residential and commercial land uses, as well as industrial (ref: 2.3.1.5, page, 2-17) BP	The land use categories attempt to reflect typical zoning designations but due to the acreage projection methodology, land use categories also have some connection to Department of Revenue classifications. See related discussion in Section 2.3.1.2.
Annexation should be added to the list of “entitlements” that the REMB might pursue (section 2.3.1.10, page 2-25 and section 4.2.2.2., page 4-15 and 4-16). BP	The DNRC recognizes that the annexation process must be utilized in order for land to be included within a city or town limits. If the DNRC were developing properties at urban densities near a city or town, it would expect annexation to be included in the entitlement process, along with subdivision and zoning. If a DNRC property were not in a desirable location to be annexed and receive city services, then annexation would not be pursued. See sections as amended.
Land use designations favorable to development should also include growth policy land use designation. BP	Agreed. The DNRC is committed to working with communities as they develop or update their Growth Policies. In the case where communities have land use designations or maps included in the Growth Policy, the DNRC will engage the community to ensure that any land use designation in a Growth Policy is consistent with DNRC goals for the property.
The section on the Relationship to Local Land Use Regulations should include annexation review (ref: Section 2.3.1.12, page 2-26) as should the implementation strategies in Section 2.6.4.5, page 2-48) BP	Annexation is not necessarily a Land Use Regulation. The annexation process generally is limited to the review of an annexation petition and the determination by the city or town that services can be provided to the petitioning tract(s). If a locality has an annexation policy in effect, this would certainly be reviewed by the DNRC in advance of submittal of an annexation petition to determine if the proposed tract(s) conformed to the approved annexation policy. See sections as amended.
The discussion of rural residential is limited to a density of one dwelling unit per 25 acres or greater. Why not address 20, 10 or 5 acres? (ref: section 2.4, page 2-29) BP	See sections as amended.
Section 2.6.2.9 states that the DNRC would follow model subdivision regulations. In the absence of technical assistance at the state level (the CTAP program was eliminated in 2003), there is no one at the state to	Section 76-3-501, MCA requires that” Before July 1, 1974, the governing body of every county, city and town shall adopt and provide for the enforcement and administration of subdivisions”. A majority of local governments have used the “Model” as at least the base of their regulations. See section as amended.

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formulate model regulations. BP	
Real estate development should only occur on lands that are adjacent to urban areas where high growth is already occurring. For example most Trust lands within FWP Region 2 (west-central Montana) are located in mountain foothill habitats or riparian areas, which provide very important wildlife habitat, such as critical big game winter range. Permanent residential, commercial or industrial structures and associated activities developed on these Trust lands would adversely affect wildlife populations. FWP	Any division of land to create lease lots on Trust lands would require evaluation through the subdivision review process and through MEPA, among others. Local jurisdictions typically seek comments from FW&Ps on subdivision applications and the MEPA process would seek similar input from FW&Ps. Lands deemed suitable for development will be identified through the funnel filter process and project selection process identified in the DEIS, which includes ample opportunities for public and agency comment and evaluation.
Lands close to urban areas may have greater value as open space to provide corridors for wildlife movement, protect critical fisheries, protect viewsheds and preserve the quality of life. FWP	This seems almost contrary to the above question. Again, the PEIS provides a screening/filtering process to identify lands most suitable for developed uses. Conservation opportunities through purchase of development rights or conservation easements could be used to protect critical features.
If Trust lands are subdivided (cabin leases, home sites) or sold (for likely development), it is important to minimize possible problems subsequent cabin or homeowners could create in "living with wildlife." It is recommended that DNRC impose development covenants that include actions that: strictly manage potential on-site attractants (garbage, pet food, livestock feed, birdfeeders, etc.), and	This could be considered as appropriate to a particular project. The need for such covenants would typically be identified through the project review process.

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keep pets under control from harassing wildlife. (Please contact FWP for possible wording of such covenants.) FWP	
<i>Conservation</i>	
The PEIS assumes that conservation uses will result in a lower financial return to the Trust. This may not always be true. Conservation strategies should be expanded to include cluster developments, which would not result in a reduced return and conservation as a compatible use with ongoing timber and grazing activities. (ref: 2.9.5.3 and 2.9.5.5) SI, SG, MEIC	Compensation at full market value for lost development rights could provide a good income stream to the trusts. The appropriateness of using techniques such as cluster development to conserve open space and/or critical habitat require a detailed evaluation at the project development level. Such approaches can be employed only in the context of local land use policy and regulatory limitations.
While the PEIS does not discourage conservation under any of the alternatives, it does not direct the REMB to consider conservation development alternatives and benefits as well as other long term economic benefits to the community. SG, MEIC	The purpose identified for state trust land in the Enabling Act of 1889, as amended is “for the support of” the beneficiaries. No other purpose is provided that would broaden the mission of the Trust Lands Division of DNRC. The federal courts have supported this position in <u>Lassen vs. Arizona Highway Department</u> . This very specific purpose limits the ability of the Department and Real Estate Bureau to consider broader social goals or in making secondary economic benefits a primary consideration in developing programs on Montana school trust lands. This is not to infer that the program managers of trust lands do not consider other benefits when looking at specific projects, this is always a consideration and if the additional public benefits do not reduce trust benefits, the alternative with the highest public benefits is chosen. However, basing an alternative on these secondary benefits would not be consistent with the Enabling Act objective of using the trust lands to provide “support” to the beneficiaries.
There may be trust lands that are deserving of conservation but do not qualify for conservation under B-1 or C-1 (1/2 mile or 1 mile from existing conservation lands). For example, a section Trust Land northwest of Missoula	None of the alternatives limit the number of conservation uses that may occur on Trust lands. The distances from existing conservation lands are only used to calculate the <i>projected</i> number of acres of Trust lands that could be placed in conservation under a particular alternative. See related discussion in Section 2.3.1.

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provides core habitat for salamanders and frogs and a refuge for deer, elk and turkey, with a significant diversity of native plants. The site is ideal for outdoor education and has been described as the "only intact forest land in this drainage". JB	
Consider placing conservation easements on certain lands that would protect the properties from further development or limit the development allowed. FWP	DNRC would allow the purchase of development rights with proper legislative authority.
The descriptions of impacts to conservation lands among the alternatives are somewhat confusing. Although Alternative A appears to be the least aggressive approach to developing Trust lands, it also lists the fewest acres of Trust lands adjacent to conservation areas. Alternatives B, B1, C and C1 more aggressively pursue development of Trust lands for increases in revenue to the Trust; however, they also have the highest acres of conservation areas since they consider lands within ½ to 1 mile from Trust lands. FWP	This is an accurate conclusion.
<i>Environmental Impacts</i>	
The PEIS states that the DNRC will be participating in development that would normally occur and that associated impacts will occur regardless of DNRC's involvement. This	The DNRC recognizes that the development of any greenfield property eliminates open space and this loss of open space may adversely affect the reason that some people moved to the community. The PEIS recognized this fact and specifically mentioned conservation uses as uses that could be allowed under any Alternative, but had special emphasis in Alternatives B-1 and C-1. Additionally, if a community is concerned about the loss of open

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assumption does not reflect the significant influence that DNRC may have in certain communities. The elimination of open space, for example, might negatively affect the ability of a community to develop its tourism and recreation economy. In other cases, development on the periphery of a community could negatively affect the downtown. SI	<p>space, it cannot rely upon Trust Lands to provide open space. The community must develop comprehensive regulations that affect all properties to accomplish the goal of preserving open space.</p> <p>Development on the periphery of a community may negatively affect the downtown, however, it can have a positive effect by diversifying the types of businesses in a community and thereby attracting more customers. The effect on downtown is determined, in part, by how the effected businesses respond to the challenge of development on the periphery.</p> <p>The PEIS focuses on how to help fund education in Montana. Montana received land to be managed in trust for the common schools, higher education and other state institutions. Trust management represents a solemn fiduciary responsibility. Neither the Swanson study nor the Rasker/Alexander study cited in this comment are particularly suited to forecasting land markets in Montana. Both acknowledge that areas with high amenities are growing. This growth will occur whether or not the state develops any of its land. Past growth has occurred with the DNRC playing only a minor role in development. If the State doesn't develop land there can be more leapfrog development and sprawl. State lands can actually help mitigate these problems.</p>
The relationship of the HCP to the PEIS is too speculative at this time. AFTWR, FOTWS	It is assumed that real estate activities on lands located within the HCP would be subject to provisions of the HCP. The relationship of the two plans is described in Section 3.2.6.
The PEIS should be amended to say: "the location and design of development on school trust lands will determine the type and amount of adverse and cumulative impact that the development will have. REMB shall seek to minimize any adverse and cumulative impacts through the criteria above and locating and designing development appropriately", rather than saying that the impacts would occur regardless of state lands development. (ref: 2.9.2) SG, MEIC	We generally concur with this statement. A major assumption of the alternatives is that DNRC will "capture" development that would occur anyway based on projected growth and economic indices. The purpose of the funnel filter process and project selection process is to identify lands that are suitable for a particular use at a particular location based upon a multitude of project considerations. Through these processes, adverse impacts should be minimized.

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The development of state lands will be growth-inducing and the PEIS should direct the REMB to determine where the growth will occur and how it will be designed. (re: 4.2.1., B and C) SG, MEIC	<p>The PEIS is careful to state that growth will continue to occur in Montana and it further attempts to predict the general locations of new growth. An underlying assumption to the PEIS is that Trust Lands would share, to varying degrees, some of that anticipated growth. To that end, DNRC would not be actively marketing lands to attract development that would not otherwise have an interest in Montana.</p> <p>The REMB will work within the context of local land use regulations and policies that address the impacts of growth and where growth will occur within that community. In addition, under MEPA, the REMB will address specific impacts related to growth that are not addressed by local regulations and policies.</p> <p>See also 2.9.6, 2.9.7, 2.10, Chapter 5</p>
Cumulative impacts will depend on the location and design of the development (ref: 4.2.1.2) SG, MEIC	<p>Project level review will help define cumulative impacts of a particular proposal.</p> <p>Refer to Chapter 5, in particular</p>
The PEIS should address the anticipated cumulative impacts on water and sanitation and develop means for mitigating those impacts. SG, MEIC	<p>Growth policies (76-2-601(b) & (c) require local governments to describe an inventory of natural resources and local services. In addition, every growth policy must make project trends for each of these resources. All subdivision regulations must contain at least the minimum standards established by DEQ {76-3-504(6)(c)}. All subdivisions are also reviewed by DEQ. The DNRC will do a MEPA analysis, which must take into account the effects on water and sanitation. There are 4 opportunities for the local governments and the public to address the cumulative effects on water and sanitation. Mitigation should address individual situations.</p> <p>See section 5.2.1</p>
The statement that development on trust lands is expected to have negligible economic, environmental and social impacts....is flawed and should be eliminated from the document. It does not address locational factors such as leap frog development that could have a greater impact than development within an urban center. BP	<p>The impacts that development of Trust Lands will, in part, be related to their location and the proximity of services and infrastructure to the tract(s). The Funnel Filter process has a Physical Suitability Filter that will direct the filter process to tracts that have available infrastructure and a desirable location. However, if Trust Lands are not developed, adjacent properties could be developed and the impacts would essentially be the same to the community as if the Trust Land were developed.</p> <p>Refer also to the comments submitted by Cascade County</p>
In various sections, the PEIS states that the alternatives would not create a demand	<p>The development of Trust Lands will have an effect on adjoining properties, however, the extent of the impact would depend upon the location of services in relation to the Trust Land and other</p>

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for conversion of current lands to commercial, industrial, residential or conservation uses. However the development of state lands could impact the type, location and timing. BP	private parcels. The development of Trust Lands would tend to have the most impact if it were extending services to an area that did not previously have them. Conversely, Trust Land could inhibit growth by not developing property that is adjacent to services and make extensions to other properties more costly, if not unfeasible.
Where they exist, local zoning regulations do not always address noxious weeds, barking dogs, etc. Many communities do not have noise ordinances. Barking dogs can be a significant source of noise in residential areas. BP	The DNRC recognizes that noxious weeds are typically regulated during the subdivision review process, as opposed to within zoning regulations. If Trust Land were divided, it would be subject to the same review and regulation of noxious weeds that are required of private lands. Also, the DNRC recognizes that a community, through the adoption of a noise ordinance, can deal with barking dogs and other noise issues. DNRC will rely on local land use regulations to address these issues as appropriate.
Sections 4.2.12.2 and 4.2.12.3 regarding noise levels appear to conflict. BP	See section as amended
Aesthetics are important in both urban and rural areas (ref: 4.2.13.12, page 4-43) BP	See section as amended
How will the state discourage sprawl and mitigate the negative impacts of sprawl? (4.2.13.3, page 4-45) BP, AFTWR, FOTWS	Under the PEIS, the REMB would work closely with local governments in addressing potential impacts associated with growth with respect to local land use regulation and growth policies. Growth policy goals and objectives are realized through the adoption of local programs and ordinances. The <i>Physical Suitability</i> Filter and the <i>Regulation</i> Filter (2.3.1.7) specifically address such issues as sprawl. See also sections 2.9.5, 2.9.7, 2.10
Methods of mitigation covering commercial and industrial developments within areas already heavily developed and mitigation that addresses impacts across broader rural landscapes. FWP, AFWR	The mitigation strategies for development on trust lands is relying upon local land use regulatory review and MEPA. Some lands are excluded from consideration early on in the funnel process based on physical and biological constraints and existing or pending rules related to the SFLMP or HCP. See also sections 2.3.1, 2.10, 3.2.6
Federal and state laws do not guarantee that legal impacts are always acceptable impacts. Potential residual adverse effects on fish and wildlife should be closely examined. FWP	DNRC recognizes that acceptable impacts are not always the same as legal impacts, and frequently acceptable levels of impacts are lower than the thresholds set by legal statute. Recognizing that acceptable impacts are ultimately set by the agency, interdisciplinary teams attempt to establish tolerable thresholds of impacts at the project level. All projects implemented within the scope of this program would continue to have individual project level analysis that satisfies MEPA

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	and sets acceptable levels of impacts.
The DEIS does not adequately address impacts to the natural environment. AFTWR, FOTWS	This is a programmatic plan that provides a systematic process for identifying defining potential project opportunities. The plan does not make specific land use allocations or identify specific projects. The funnel filter process considers a vast array of information that leads to a conclusion as to lands that might be suitable for development, primarily by identifying lands that are not suitable for development. Specific project opportunities are eventually identified as 1, 3, and 5 year project lists. These projects are then further evaluated through local land use regulations and through the MEPA process. Site specific impacts can then be evaluated in detail and their relationships to the natural environment. See also sections 1.1.4, 2.3.1, 2.10, chapter 5
MEPA Related Issues	
State Trust Land developments should be in compliance with local plans and MEPA. SG, MEIC	The PEIS calls for the REMB to develop its programs and projects with respect to local land use regulations and policies as well as MEPA. See also sections 2.9.7 and 2.10
The PEIS should clear up contradictory statements regarding the use of exemptions (ref: 2.9.2.1 -3 and 5.2). SG, MEIC	Section 5.2 accurately reflects the relationship of local government review and application of MEPA. In general terms, the EIS demonstrates that many of the requirements of MEPA can be satisfied through local review of projects and duplication of process is not intended. In all instances, a MEPA analysis will be performed for each action, but the level of analysis will depend on the scope of project review conducted at the local level. See sections as amended.
Table 2-19 should be changed to make it clear that the REMB will not seek exemptions from MEPA and local land use regulations. SG, MEIC	Under this PEIS, the REMB intends to meet all local land use regulations and MEPA requirements and will waive its right of exemption under MCA 76-2-402 and MCA 73-3-205 (2). (ref: 5.2, 2.9.7, 2.10)
Section 4.2.1.5 falsely states that short and long term productivity are identical. SG, MEIC	It states that it is "not applicable".
Section 2.3.1.12, page 2-27, conflicts with 2.9.2.2, regarding cultural resources. The first section indicates that cultural resource assessments would only be	It is the intention of the REMB under this PEIS to comply with MEPA and the Montana Antiquities Act. The requirements under these two Acts may be addressed, in whole or in part by local land use regulations. In cases where local land use regulations to not fully address the REMB's responsibilities under MEPA or the Montana Antiquities Act, the REMB will follow state requirements.

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undertaken under the Montana Antiquities Act and MEPA if the local government did not require them. The second section indicates these assessment would be taken regardless of the local regulations. Which policy is correct? We would prefer the latter. BP	See sections as amended.
Whenever local regulations are identified for their ability to address MEPA requirements, the text should refer to subdivision regulations as many communities do not have zoning regulations. BP	Local regulations could apply to subdivisions, zoning, floodplain, annexation, building permits and others. Required elements of MEPA could be addressed by multiple local regulations.
In Sections 2.9.4.2, 2.9.4.3 and 2.9.7.3, the PEIS indicates that the department would work with local governments to facilitate a more simplified review. This contradicts the reliance that REMB will have on local land use planning regulations in meeting its MEPA requirements. The state needs to commit to following local policies or not. BP	Alternatives B, B-1, C and C-1 call for a closer working relationship with local government than under the existing condition (Alternative A). Closer working relationships with local governments will enable the REMB to more easily identify lands that are suitable for development. By being involved in local land use planning, the REMB will be better versed in the specific requirements and review criteria imposed by local planning regulations and will be able to design projects that are more responsive to those specific regulatory issues. In doing so, they REMB will avoid approval delays. The REMB is, under this PEIS, committed to working with local governments to facilitate the granting of favorable land use entitlements. However, while the REMB may seek improved entitlements for its lands, it is the intent of the REMB to participate in and follow local land use regulatory processes. See sections as amended.
Regarding public involvement requirements under MEPA, it should be noted that many zoning reviews and first minor subdivisions from a tract of record do not have public hearing requirements. How will the state provide public involvement in cases where none is required locally.(ref: 2.9.6, page 2-58 and Table 5-1 – Item #1, Page 5-9). BP	The DNRC recognizes that first minor subdivisions from a tract of record do not require a public hearing. However, pursuant to House Bill 94, which modified MCA 2-3-103 and was adopted by the 2003 Legislature, when the subdivision is on the agenda of the Planning Board or Governing Body for action, they must allow for Public Comment on any item on their agenda. The initiation, adoption or changing of zoning districts or the other zoning actions do require public hearings (see MCA 76-2-106; 76-2-205; 76-2-225; 76-2-303 and 76-2-325). A ministerial staff review of a site plan, for example, does not require a public hearing. However, pursuant to HB 94 and MCA 2-3-103, any meeting in which an official action is taken by any local government or its subdivision

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	must include the allowance for public comment on any agenda item. For example, a Design Review Board would have to allow public comment at one its meetings on a project under its purview. See sections as amended.
Regarding Table 5-3, Items 4-8, page 5-10, the level to which growth policies address natural resources is at the full discretion of the governing body. Further an environmental assessment is not required for the first minor subdivision from a tract of record and an EA is not required for subdivisions that are in an area with an adopted growth policy, zoning regulations and an infrastructure improvement plan. If no EA is required, how will the state provide information to address geology, soils, air and water quality, vegetation, and habitat. BP	<p>The DNRC recognizes that 76-1-601 was modified by the Legislature to allow the local Governing Body latitude in the depth that it addresses certain elements in a Growth Policy. The existing conditions and projected trends of Natural Resources are elements in which the Governing Body has latitude. Additionally, it is recognized that the first minor subdivision from a tract of record is exempt from conducting an EA. Additionally, the Governing Body and Planning Board have the ability to waive an EA in certain circumstances (see MCA 76-3-210).</p> <p>Regardless, the required MEPA process will satisfy information regarding these elements.</p>
(Ref: Table 5-3, Items 11 and 12, page 5-11) Overall, growth policies and land use regulations do not typically address natural resources and aesthetics. BP	<p>76-1-601(3)(b)(vii), MCA requires growth policies to address current natural resource conditions. 76-1-601-(3)(b)(vi), MCA requires projected trends for natural resources.</p> <p>76-3-501, MCA - Local subdivision regulations. (1) Before July 1, 1974, the governing body of every county, city, and town shall adopt and provide for the enforcement and administration of subdivision regulations reasonably providing for the orderly development of their jurisdictional areas; for the coordination of roads within subdivided land with other roads, both existing and planned; for the dedication of land for roadways and for public utility easements; for the improvement of roads; for the provision of adequate open spaces for travel, light, air, and recreation; for the provision of adequate transportation, water, and drainage; subject to the provisions of 76-3-511, for the regulation of sanitary facilities; for the avoidance or minimization of congestion; and for the avoidance of subdivision which would involve unnecessary environmental degradation and the avoidance of danger of injury to health, safety, or welfare by reason of natural hazard or the lack of water, drainage, access, transportation, or other public services or would necessitate an excessive expenditure of public funds for the supply of such services.</p> <p>76-3-504. Subdivision regulations -- contents. (1) The subdivision</p>

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	<p>regulations adopted under this chapter must, at a minimum:</p> <ul style="list-style-type: none"> (a) except as provided in 76-3-210, 76-3-509, or 76-3-609(3), require the subdivider to submit to the governing body an environmental assessment as prescribed in 76-3-603; (d) provide for the identification of areas that, because of natural or human-caused hazards, are unsuitable for subdivision development and prohibit subdivisions in these areas unless the hazards can be eliminated or overcome by approved construction techniques; (e) prohibit subdivisions for building purposes in areas located within the floodway of a flood of 100-year frequency, as defined by Title 76, chapter 5, or determined to be subject to flooding by the governing body; (f) prescribe standards for: <ul style="list-style-type: none"> (i) the design and arrangement of lots, streets, and roads; (ii) grading and drainage; (iii) subject to the provisions of 76-3-511, water supply and sewage and solid waste disposal that, at a minimum, meet the regulations adopted by the department of environmental quality under 76-4-104; (iv) the location and installation of utilities; (g) provide procedures for the administration of the park and open-space requirements of this chapter; <p>County zoning - 76-2-203. Criteria and guidelines for zoning regulations. (1) Zoning regulations must be:</p> <ul style="list-style-type: none"> (a) made in accordance with the growth policy or a master plan, as provided for in 76-2-201(2); and (b) designed to: <ul style="list-style-type: none"> (i) lessen congestion in the streets; (ii) secure safety from fire, panic, and other dangers; (iii) promote public health and general welfare; (iv) provide adequate light and air; (v) prevent the overcrowding of land; (vi) avoid undue concentration of population; and (vii) facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements. <p>(2) Zoning regulations must be made with reasonable consideration, among other things, to the character of the district and its peculiar suitability for particular uses and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout the jurisdictional area.</p> <p>(3) Zoning regulations must, as nearly as possible, be made compatible with the zoning ordinances of the municipality within the jurisdictional area.</p> <p>Municipal Zoning - 76-2-304. Purposes of zoning. (1) Zoning regulations must be:</p> <ul style="list-style-type: none"> (b) designed to:

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	<p>(i) lessen congestion in the streets;</p> <p>(ii) secure safety from fire, panic, and other dangers;</p> <p>(iii) promote health and the general welfare;</p> <p>(iv) provide adequate light and air;</p> <p>(v) prevent the overcrowding of land;</p> <p>(vi) avoid undue concentration of population; and</p> <p>(vii) facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements.</p> <p>(2) Zoning regulations must be made with reasonable consideration, among other things, to the character of the district and its peculiar suitability for particular uses and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout the municipality.</p> <p>(3) Until October 1, 2006, zoning regulations may be adopted or revised in accordance with a master plan that was adopted pursuant to Title 76, chapter 1, before October 1, 1999.</p>
Regarding items 16 -17 in table5-4, Page 5-12, typically local land use regulations do not address issues related to employment – quantity and distribution or related to the state and local tax base and revenues. How will the state provide this information? BP	<p>DNRC recognizes that local land regulations have a small effect in reviewing the Quality and Distribution of Employment and Local Tax Base and Revenues. However, local decisions regarding allowable land uses on parcels do have a direct effect on local tax revenues. For example, if local governments provide for and encourage commercial and industrial zoning and developments they will gain revenue versus having the tracts being developed as low-to mid level residential. This is because commercial tends to be a net revenue generator.</p> <p>Also, the adopted Growth Policy should look at the overall economic conditions and local services, as well as projected trends in both elements (see MCA 76-1-601). The Growth Policy provides an overall framework for the community. Some goals and policies in the Growth Policy relating to economic conditions and local services may be implement, in part, through land use regulations, including both zoning and subdivision. Zoning will set the allowable uses for the land and if conditions are permitted, some mitigation of external impacts allowed. In subdivision review, conditions can be placed on a development to allow its adverse impacts to be mitigated as long as there is a rational nexus between the conditions and the project.</p>
Not all zoning reviews require public notification and opportunities to comment. (ref: Table 5-4, Item17, page 5-12). BP	The initiation, adoption or changing of zoning districts or the other zoning actions do require public hearings (see MCA 76-2-106; 76-2-205; 76-2-225; 76-2-303 and 76-2-325). A ministerial staff review of a site plan, for example, does not require a public hearing. However, pursuant to House Bill 94 which was adopted by the 2003 Legislature and amended MCA 2-3-103, any meeting in which an official action is taken by any local government or its subdivision must include the allowance for Public Comment on any agenda item. For example, a Design Review Board would have to allow public comment at one its

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	meetings on a project under its purview.
Under the PEIS, the state would be relying entirely too much on local government to collect information required for MEPA review. Most local regulatory processes are not going to provide this information. BP	The MEPA process would involve collecting information from all available sources, including but not limited to existing local government information. See above comments for what local governments must have in their information.
<i>Revenue Considerations</i>	
Long-term revenue generation – land kept in public trust would theoretically generate revenue forever, while the money obtained from land sales may or may not continue to generate revenue depending on the success or failure of various investment options. A long-term economic projection that looks at the long-term income potential of the various alternatives, including the “Minimal/Passive” and “Long-Term Resource Management and Conservation” alternatives would be beneficial. FWP, AFTWR, SWC, FOTWS	<p>There is no guarantee that lands kept in public trust would “generate revenue forever.” Changing social policies at the local, state or federal level could make it impossible or very difficult to utilize the land to provide support to the different trusts as required by the Enabling Act of 1889. The DNRC often has difficulty utilizing lands in their “best” use due to location or to local citizens or local government trying to place restrictions on their use.</p> <p>It is true that the liquidation of the lands and placing the revenue in to an investment trust does carry with it some risk of poor management reducing the principle value of the investment. For this reason, public trusts are nearly always required to invest in those kinds of securities which minimize this type of risk. Trusts have existed in this country for over 100 years and have prospered under careful management. There is no reason to suppose that the beneficiaries investment trusts will be more likely to fail than there is reason to suppose that governmentally imposed restrictions will not effectively foreclose the ability of the lands to directly provide support for the trusts. Clearly, the trust managers are better able to control the risk of losing asset earning power in investment trusts where they can invest conservatively than in the case of lands that are subject to interventions over which they have no control.</p>
<i>The Alternatives</i>	
Another alternative should be considered with the following elements: A clear, measurable goal that accomplishes the agency’s mission should be established. The Physical, Transitional and Market filters should be	DNRC is the agency responsible for managing school trust lands for the purpose of generating revenue to the trust beneficiaries. This is being accomplished by the TLMD of DNRC under the guidance of four Bureaus with distinct land use objectives. The mission of the agency is not distinct to a particular Bureau but to the entire TLMD. The resulting portfolio of agriculture, grazing, timber, minerals, and real estate are intended to achieve a common goal in support of the schools of Montana. The Real Estate Bureau under all alternatives would manage less than 1% of the total trust land acreage in

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<p>used to identify a limited set of lands for development while removing others from consideration.</p> <p>The project level filters should be employed using a set of guiding principles. Criteria for choosing among development strategies should be identified.</p> <p>There should be a methodology for monitoring and evaluation. SI, AFTWR, FOTWS</p>	<p>developed uses but these uses contribute proportionally higher rates of return than agriculture, grazing, and timber uses. So from a portfolio management perspective, it would be prudent and obligatory to seek opportunities for increased revenue to the trusts through various real estate activities. All land use decisions would also be evaluated against environmental concerns through local government review and MEPA compliance.</p> <p>The first 3 filter processes are intended to identify those lands that may have some suitability for developed uses at a programmatic level. These lands are evaluated with additional filters at a project level to define site-specific opportunities. The initial filters related to “transition” and “market” reflect a static situation that can change over the next 21 years of the plan. The market today is not likely to be the market in 10 years and the proximity relationships applicable to the transition filter change as developed uses move closer to state lands. For this and other reasons, this programmatic plan is not intended to predict specific land parcels that may be subject to future development opportunities. The filter model can only help to identify land use characteristics that may or may not be favorable for future development. A monitoring program is proposed to help identify changing assumptions, market trends, ect, that may occur over the life of the plan.</p> <p>Each project filter has guiding principles as described in the DEIS. The first filter, for example, considers steep slopes and wetlands. The project filter considers zoning, annexation, subdivision review, etc. The MEPA filter has specific rules as guiding principals. Guiding principals can be described for each filter.</p> <p>Development strategies must remain flexible to fit unique situations of a particular project. This is a programmatic plan, not a project level activity. TDRs, clustering, PDRs, etc all could have roles in helping to achieve desired project objectives. The preferred type of implementation strategy can only be selected at a project level evaluation.</p> <p>Implementation of the Programmatic plan and monitoring is described in the EIS. Section 2.4 discusses implementation of the preferred alternative and Section 4.3 discusses how the plan will be monitored.</p>
<p>Alternative B-1 is most attractive because it would create the revenue, time and impetus for the REMB to work with local governments to plan for future growth.</p>	<p>All alternatives anticipate working relationships with local governments, including project level approvals. The level of anticipated coordination/cooperation actually increases from Alternative A to Alternative D. The highest revenues and rates of return to the trusts are associated with Alternative C.</p>

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SG, MEIC	
Alternative B-1 with a clear set of development criteria should be the preferred alternative. SG, MEIC	This opinion is noted.
Alternative C should be selected because it is more proactive in planning and achieves improved rates of return. CC, GR	Noted. Alternatives B, C, and D would satisfy the intent to be proactive, be actively involved in the local review process, and achieve higher rates of return. Alternative D would achieve a closer link to community planning efforts. See also sections 2.6, 2.9, 2.10, 2.11
The range of alternatives should include a “no increased development” option to more fully document cumulative impacts.. This would enable the DNRC to document how the new plan will meet the mission of the DNRC to “manage trust land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land.” FWP	The No Action alternative is continuation of the existing program philosophy of the Real Estate management Bureau. This anticipates continued involvement with real estate activities that tend to generate substantially higher returns than traditional resource based uses. It would be irresponsible to the trust beneficiaries for DNRC not to respond to increased revenue opportunities from residential, commercial, and industrial uses.
Reconsider evaluating an alternative that focuses on wildlife and fisheries habitat and open space as priorities. Such an alternative would recognize the significant contribution that public lands, including Trust lands, make in generating revenues from hunting, fishing, and tourism money that benefits Montana’s overall economy. Trust lands can and do generate direct revenue from these sources and the PEIS would benefit by fully exploring this type of alternative. FWP	The purpose identified for state trust land in the Enabling Act of 1889, as amended is “for the support of” the beneficiaries. No other purpose is provided that would broaden the mission of the Trust Lands Division of DNRC. The federal courts have supported this position in <u>Lassen vs. Arizona Highway Department</u> . This very specific purpose limits the ability of the Department and Real Estate Bureau to consider broader social goals or in making secondary economic benefits a primary consideration in developing programs on Montana school trust lands. This is not to infer that the program managers of trust lands do not consider other benefits when looking at specific projects, this is always a consideration and if the additional public benefits do not reduce trust benefits, the alternative with the highest public benefits is chosen. However, basing an alternative on these secondary benefits would not be consistent with the Enabling Act objective of using the trust lands to provide “support” to the beneficiaries. See also section 2.5
Of the Alternatives considered in the DPEIS,	Opinion noted. Please be aware that impacts to fish and wildlife could be similar under any alternative. The project selection process

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Alternative A would have the least impact to wildlife, fisheries, and their habitats and is therefore the most favorable of the given alternatives. Modification of Alternative A to include language from Alternative C1 for making conservation easements a priority within one mile of lands with existing conservation authorizations would make the alternative even better as it relates to natural resource conservation. FWP	is intended to filter out those lands that may not be suitable for developed uses for one reason or another. Site-specific impacts would be evaluated on a project level basis through local review and MEPA.
<i>Misc. Comments</i>	
A current leaseholder at Echo Lake would prefer to keep that area as it is currently. In addition, there is concern over diversion of water to Echo Lake by a land owner whose property runs through the main runoff source for Echo Lake. She would like a specific response to this concern. DB	Trust lands in the area of Echo Lake are currently managed for timber and residential uses. Any significant deviation from the current management philosophy would be subject to some level of public comment and review. Current proposals in the area include leasing land to FW&Ps for a boat ramp. This may be followed with a proposal from DNRC to create additional residential lots. Under the latter situation, this action would be subject to local subdivision review and involve public notification. The water diversion issue is outside the scope of this EIS.
There is no provision to adopt a strict, independent appraisal system. AFTWR, FOTWS	This is outside the scope of this EIS.
Selling land should not be an option for reasons related to "long term productivity", and associated impacts.	Selling land is one of many tools to achieve the interests of the trusts and would be identified in most situations as a REMB project so would be linked to the funnel process and project identification process. Alternative D identifies a desire to achieve outcome objectives for project lands through improved land entitlements and the public process associated with securing most entitlements would also be a means for considering local community values. See also sections 2.3, 2.6, 2.7, 2.8, 2.10, 4.3
As a current leaseholder, we would like the option to	The programmatic Plan anticipates that DNRC would continue to manage the existing leases, as apposed to selling.

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purchase our lots. JO, DJB	See section 2.2.1.2
How does land banking relate to the PEIS?	Land banking is a tool for implementing real estate transactions. See related discussions in Section 2.3 and 4.3.
What is the basis for the statement on page 2-52 that “total acreage of Trust Lands available for casual recreation is either not expected to decrease or decrease only slightly?” This seems to be intuitively at odds with the stated intent to dispose of some lands through sale and/or development. FWP	Based on the relative number of acres that could be converted to developed uses as compared to the total trust land area, the quoted statement is accurate. Less than 1% of the state trust lands would be converted to commercial, residential or industrial uses under any of the propose alternatives. DNRC estimates that 96% of the 5.2 million acres are available for recreational use. Project level analysis will determine the actual impact that a project could have on recreation.
FWP requests that a requirement be incorporated in the real estate plan that requires the appropriate (local) regional FWP office be consulted on all land actions that could change the current status of individual Trust land tracts. FWP requests this opportunity in order to help DNRC identify important wildlife, riparian, fisheries and public recreational opportunities. FWP	DNRC and local governments consult with DFWP when conducting a MEPA analysis and/ or subdivision review.
FWP would like to recommend that DNRC consider incorporating language into the PEIS that would enable the Real Estate Program to utilize the concept of “no-cost temporary management agreements.” Such language could be: “DNRC recognizes that there are circumstances under which DNRC’s cost of managing a tract of State Trust land exceeds the income that the land generates to the Trust.	State trust lands that receive pressures from various sources, such as recreational uses with associated management costs, would be eligible for management and maintenance funds from the general recreational use program. Significant use by the public would suggest working with FWP and enter into a lease or license agreement to manage the recreational use by the public. FWP could then utilize the no-cost concept to offset their costs for management and administration.

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<p>DNRC also recognizes that under such circumstances it would be a net financial benefit to the Trust and its beneficiaries to prevent the Trust from having to incur these costs. DNRC further recognizes that, for some specific parcels of land, other public bodies or nonprofit organizations may wish to manage these lands and incur the management costs for the purpose of providing public benefits consistent with their agency or organizational mission. DNRC concludes that it would be beneficial to the Trust for DNRC to enter into management agreements with other state agencies, local government bodies or nonprofit organizations (termed Temporary Managing Entity, or TME's), under which the TME's are authorized to manage State Trust land without charge to the TME, under the following specific conditions:</p> <p>DNRC has determined that the cost of its management of the land provides no net financial gain to the Trust, and that there is at the present time no other practical and legal use of the property that would provide revenue from the land to the Trust.</p> <p>A Temporary Managing Entity (TME), which must be a state agency, local government body or nonprofit organization,</p>	

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<p>desires to manage the property, and incur all management costs, for the purpose of providing a public benefit.</p> <p>The TME must submit, for DNRC review and approval, a management plan detailing all actions that the TME will undertake on the property. Actions of the TME shall not diminish the value of the School Trust or in any way impair the income-producing capability of the Trust Land. The TME may not charge for any use of the property and may not sublease the property or any of its resources or uses. The TME must maintain and provide upon request to DNRC and to the public any records pertaining to the management and use of the land.</p> <p>The management agreement may be cancelled at any time at the sole discretion of DNRC, provided that the TME shall be given reasonable opportunity to remove from the property any improvements or other items owned by the TME.”</p> <p>This suggestion is being offered because no such option currently exists for DNRC. FWP believes that such an option could institutionalize DNRC’s ability – at its sole discretion – to enter into temporary management agreements that would benefit the Trust by reducing costs, while also</p>	

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maintaining resource quality and public benefits. FWP	

Key to Initials:

SI –	Sonoran Institute
SG –	Montana Smart Growth Coalition
BF –	Citizens for a Better Flathead
BP –	Bozeman Office of Planning and Community Development
JB –	Jo Ann Bernofsky
DB –	Debra Bowers
FWP –	Fish, Wildlife and Parks
JO –	John Owen
DJB –	Debra & Joe Bowers
AFTWR –	Alliance for the Wild Rockies
SVC –	Swan View Coalition
FOTWS –	Friends of the Wild Swan
CC –	Cascade County
GR --	Glen Rickett and Robert Heffner
MEIC --	Montana Environmental Information Center

Copies of Letters Received During DEIS Comment Period

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August 19, 2004

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Real Estate Management Programmatic EIS Team
Department of Natural Resources and Conservation
PO Box 201601
Helena MT 59620-1601

Dear EIS Team:

Montana Fish, Wildlife, & Parks (FWP) is pleased to provide the following comments and recommendations for the Montana Department of Natural Resources and Conservation's (DNRC's) Draft Real Estate Management Programmatic Environmental Impact Statement (DPEIS).

FWP understands the need to generate revenue from State Trust lands to help fund public schools and other public institutions and facilities. However, subdivision and land development, collectively, are likely the single greatest land use threat to the fish and wildlife resources. They preclude other management options and create impacts that reach far beyond the locations of actual development.

The proposed funnel filter process in your DPEIS does appear to establish a suitable framework for identifying specific projects, and when followed by a MEPA process conducted before any specific real estate management land use decisions, regarding Trust lands are made, will likely provide for well-grounded management decisions.

Nonetheless, FWP does have concerns and is making recommendations to address the apparent direction of the EIS which appears to lean toward generating increased revenues from State Trust lands by increased sales, exchanges or leases for residential, commercial, and industrial real estate development (as stated in the plan objectives). FWP's comments and recommendations are as follows.

1. FWP recommends focusing real estate development only on those State Trust lands in and adjacent to urban areas where high growth is already occurring. To

illustrate FWP's concern, most Trust lands within FWP Region 2 (west-central Montana) are located in mountain foothill habitats or riparian areas, which provide very important wildlife habitat, such as critical big game winter range. Permanent residential, commercial or industrial structures and associated activities developed on these Trust lands would adversely affect wildlife populations.

2. In association with the recommendation above, public lands that are adjacent to urban areas with high growth potential, might still be more valuable as open space, corridors for wildlife movement (including endangered/threatened species), protective areas along streams for critical fisheries, etc. These open or scenic areas near urban settings are also important factors to consider in helping to preserve the quality of life in Montana (and benefiting tourism) by helping to maintain the viewshed, a major factor in why many people choose to live in or visit Montana.
3. To more fully document the cumulative impacts FWP suggests that you look at the option of no increased development. This analysis should document how effectively your new plan will meet your overall mission to "manage trust land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land."
4. Following are additional issues that FWP believes should be included in your analyses:
 - a. Methods of mitigation covering commercial and industrial developments within areas already heavily developed and mitigation that addresses impacts across broader rural landscapes.
 - b. Federal and state laws do not guarantee that legal impacts are always acceptable impacts. Potential residual adverse effects on fish and wildlife should be closely examined.
 - c. Costs of government services associated with residential development of state trust lands. For an example see Comment 5 on the next page.
 - d. The impact of taking lands out of traditional resource use, including the loss of associated public recreational opportunities, and converting them to limited private use.
 - e. Similarly, the cumulative impacts to broader sectors of the economy require examination. For example, the economic analyses of the Thompson/Fisher conservation easement included the economic impacts of development vs. conservation and concluded that the two competing scenarios were essentially equal in terms of overall regional economic activity. However, from an equity or distributive standpoint, it concluded that the main public beneficiaries of development would be a limited

number of homeowners, while the beneficiaries of conservation would be several thousand hunters, anglers and outdoor recreationists.

- f. Evaluate the impacts of real estate development on public recreational opportunities. Many Trust lands provide public access for recreational opportunities including hunting, fishing, and trapping. With the passage of SB 130 and entering into a 10 year agreement with DNRC, FWP has agreed to pay DNRC \$2.00/licensee for access to Trust lands for hunting, fishing and trapping. Implicit in that agreement, and explicit in DNRC's rationale for promoting the bill and agreement, the level of opportunity available today (i.e. the quantity and quality of fish, game, recreational opportunity, etc.) is "worth" \$2.00 per person. Given that, it is reasonable to argue that if DNRC subdivides or otherwise degrades the quality of the habitat, thus reducing the "value" of use of Trust lands for the uses FWP compensates the Trust, then it is reasonable to expect that recreationists and FWP should not have to pay as much in the future for public access. Conversely, if DNRC takes steps to enhance the quality of hunting or fishing on Trust lands, the "value" could rise. Subdivision and/or development of Trust lands in a way that has adverse impacts on access and wildlife can reduce the income generating potential of those lands through recreation.
5. FWP recommends that you reassess your analysis that suggests development would be restricted to the "urban fringe." Appendix C Figures 14-16 show development potential scattered across the landscape. Such development would have extensive impacts beyond increasing "the number of encounters between humans and wildlife." Such conflicts result in increased public demand for government agencies to solve the resulting problems. Public expectations for resolving wildlife conflicts range from reducing human safety risks to addressing the destruction of ornamental landscapes. These conflicts are frequently resolved by removing offending animals. This can result in reduced wildlife population densities surrounding such developments. There are also increased demands for fire protection, road maintenance and emergency services. All of these impacts should be evaluated in the PEIS.

It is also recommended that you reconsider your analysis that concludes that all alternatives would have similar levels of impact on the state fisheries resource. You assume that "developers of residential lands would be required to comply with applicable regulations and requirements pertaining to control of sediment, storm water runoff control during construction of residential properties and use best management practices." A good example of why this is not a safe assumption is the rural residential development on Plum Creek lands in western Montana. This rural residential development has involved large tract sales that are exempt from all but minor subdivision reviews. Individually, these projects may have relatively minor impacts to local water quality, but your DPEIS documents up to 23,000 acres of new rural residential development on DNRC land. Such development may result in clearing of streamside trees and brush that

could have severe consequences to fisheries habitat values, but which is also exempt from Montana SMZ law.

6. FWP recommends that you reconsider evaluating an alternative that focuses on wildlife and fisheries habitat and open space as priorities. Such an alternative would recognize the significant contribution that public lands, including Trust lands, make in generating revenues from hunting, fishing, and tourism money that benefits Montana's overall economy. Trust lands can and do generate direct revenue from these sources and the PEIS would benefit by fully exploring this type of alternative.
7. Issues that FWP believes could benefit from clarification or additional analysis include:
 - a. Long-term revenue generation – land kept in public trust would theoretically generate revenue forever, while the money obtained from land sales may or may not continue to generate revenue depending on the success or failure of various investment options. A long-term economic projection that looks at the long-term income potential of the various alternatives, including the “Minimal/Passive” and “Long-Term Resource Management and Conservation” alternatives would be beneficial.
 - b. What is the basis for the statement on page 2-52 that “total acreage of Trust Lands available for casual recreation is either not expected to decrease or decrease only slightly?” This seems to be intuitively at odds with the stated intent to dispose of some lands through sale and/or development.
8. The funnel filter process, where a series of filters determines the suitability of Trust lands for development, appears to be a good approach. However, FWP recommends that the presence/absence of important wildlife and fisheries habitat should be a part of the filter process. These alone should stand as criteria for no residential, commercial, or industrial development.
 - a. FWP recommends introducing the following to the funnel process:
 - i. No lands found within identified wildlife corridors or linkage zones should be sold or traded for development.
 - ii. If Trust lands are subdivided (cabin leases, home sites) or sold (for likely development), it is important to minimize possible problems subsequent cabin or homeowners could create in “living with wildlife.” FWP recommends imposing development covenants that include actions that: strictly manage potential on-site attractants (garbage, pet food, livestock feed, birdfeeders, etc.), and keep pets under control from harassing wildlife. (Please contact FWP for possible wording of such covenants.)

- iii. Consider placing conservation easements on certain lands that would protect the properties from further development or limit the development allowed.
 - iv. Consider road closures or restricting access agreements that might otherwise encourage excessive development on adjacent lands.
- 9. In reviewing the various alternatives, FWP found the descriptions of impacts to conservation lands to be somewhat confusing. Although Alternative A appears to be the least aggressive approach to developing Trust lands, it also lists the fewest acres of Trust lands adjacent to conservation areas. Alternatives B, B1, C and C1 more aggressively pursue development of Trust lands for increases in revenue to the Trust; however, they also have the highest acres of conservation areas since they consider lands within ½ to 1 mile from Trust lands.
- 10. FWP requests that a requirement be incorporated in the real estate plan that requires the appropriate (local) regional FWP office be consulted on all land actions that could change the current status of individual Trust land tracts. FWP requests this opportunity in order to help DNRC identify important wildlife, riparian, fisheries and public recreational opportunities.
- 11. FWP would like to recommend that DNRC consider incorporating language into the PEIS that would enable the Real Estate Program to utilize the concept of “no-cost temporary management agreements.” Such language could be:

“DNRC recognizes that there are circumstances under which DNRC’s cost of managing a tract of State Trust land exceeds the income that the land generates to the Trust. DNRC also recognizes that under such circumstances it would be a net financial benefit to the Trust and its beneficiaries to prevent the Trust from having to incur these costs. DNRC further recognizes that, for some specific parcels of land, other public bodies or nonprofit organizations may wish to manage these lands and incur the management costs for the purpose of providing public benefits consistent with their agency or organizational mission. DNRC concludes that it would be beneficial to the Trust for DNRC to enter into management agreements with other state agencies, local government bodies or nonprofit organizations (termed Temporary Managing Entity, or TME’s), under which the TME’s are authorized to manage State Trust land without charge to the TME, under the following specific conditions:

- DNRC has determined that the cost of its management of the land provides no net financial gain to the Trust, and that there is at the present time no other practical and legal use of the property that would provide revenue from the land to the Trust.
- A Temporary Managing Entity (TME), which must be a state agency, local government body or nonprofit organization, desires to manage the property, and incur all management costs, for the purpose of providing a public benefit.

- The TME must submit, for DNRC review and approval, a management plan detailing all actions that the TME will undertake on the property. Actions of the TME shall not diminish the value of the School Trust or in any way impair the income-producing capability of the Trust Land.
- The TME may not charge for any use of the property and may not sublease the property or any of its resources or uses. The TME must maintain and provide upon request to DNRC and to the public any records pertaining to the management and use of the land.
- The management agreement may be cancelled at any time at the sole discretion of DNRC, provided that the TME shall be given reasonable opportunity to remove from the property any improvements or other items owned by the TME.

This suggestion is being offered because no such option currently exists for DNRC. FWP believes that such an option could institutionalize DNRC's ability – at its sole discretion – to enter into temporary management agreements that would benefit the Trust by reducing costs, while also maintaining resource quality and public benefits.

Of the Alternatives considered in the DPEIS, FWP believes Alternative A would have the least impact to wildlife, fisheries, and their habitats and is therefore the most favorable of the given alternatives. Modification of Alternative A to include language from Alternative C1 for making conservation easements a priority within one mile of lands with existing conservation authorizations would make the alternative even better as it relates to natural resource conservation.

FWP understands that the MEPA process and requirements can be tedious and time consuming but FWP has found that thorough and exhaustive analyses of the greatest number of alternatives provides for the most positive and beneficial outcome for Montana's natural resources and the people who cherish those resources. Thank you for the opportunity to provide you with what FWP hopes are helpful comments and recommendations to aid you in the completion of your PEIS.

Sincerely,

M. Jeff Hagener
Director

I recently retired from 30 years of teaching young children and developing “traveling trunks” of natural history education materials in Missoula.

I am aware that the purpose of comments to the DPEIS is not to refer to specific parcels of land but I am concerned that the qualifying Conservation distance criteria of B-1 (1/2 mile) and C-1 (1 mile) will not provide for the possibility of Conservation options on land that deserves Conservation.

For the past fifteen years I have visited a unique section of School Trust Land 10 miles northwest of Missoula. This section has been selectively logged and contains many trees that are 200 years old. It is a core habitat for salamanders, frogs; a refuge for deer, elk and, turkey with a significant diversity of native plants. It is an ideal site for outdoor education. It has been described as the “only intact forest land in this particular drainage.” This section of school trust land is surrounded by heavily logged Plum Creek property.

Since this section is neither ½ mile nor 1 mile from existing Conservation lands it will not qualify for consideration under the B-1 Conservation Priority or the C-1 Conservation Priority.

How many more School Trust sections are deserving of Conservation but may not be so considered? Clearly we do not want to lose such habitat simply because it is overlooked by existing criteria.

Jo Ann Bernofsky
243 Mount Avenue
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wwfe@ism.net

August 20, 2004

To: Trust Lands Management Division
Montana Department of Natural Resources and Conservation
1625 11th Avenue
Helena, MT 59620

From: Mayre Flowers, Program Director, Citizens For A Better Flathead

Re: Draft Real Estate Management Programmatic Environmental Impact Statement

Thank you for the opportunity to comment on the June 21, 2004 Draft Real Estate Management Programmatic EIS. Citizens For A Better Flathead is a member of the Montana Smart Growth Coalition, which has submitted comments on this DPEIS already. We support and strongly encourage your careful consideration of the detailed comments made by the Montana Smart Growth Coalition, as well as those comments submitted the Sonoran Institute, who is also a coalition member.

In addition to our support of these comments by these two organizations, we would like to emphasize the following:

- The comments submitted by the Sonoran Institute make a strong case for more clearly defining goals to guide the work of the REMB to avoid pitfalls such as developer driven growth. We also suggest that an ethics/public disclosure policy be established that provides full transparency and appropriate limitations to developer-driven influence on state lands decisions that might not be accomplished under the currently proposed underlying goals and filter criteria. We feel that such a policy is necessary, given ethical concerns and lack of public disclosure situations that have arisen in the course of the Whitefish State Lands discussions, as well as those with Section 36 in Kalispell.
- Local communities rely on taxes to cover costs of services. These taxes are generated from both the land and from the improvements placed on the land. Under current state law, state lands are exempt from such taxes. An attempt for the first time to address this issue occurred in the development agreement for Section 36. Here they implemented a limited type of beneficial use tax system that would attempt to compensate the effected local government. I am not aware that any analysis has been done to measure the adequacy of the beneficial use tax agreement reached on Section 36 in Kalispell or if a similar agreement has been put in place for other state lands on which development has occurred, such as with cabin leases. A more detailed and careful analysis of the use of a beneficial tax as an appropriate tool to address the ability of development on state lands to fairly and equally compensate local governments for the cost of services caused by development is required because this PEIS contemplates a much grander and long-range scheme of development for state lands across the state.

- The taxes that local communities rely on to cover cost of services are established in part by a state appraisal system that, over a set period of years, calls for reappraisal of lands and improvements for taxing purposes. Again, in the case of the plan put in place for Section 36 in Kalispell, an appraisal period was established that differed from the one used for private lands in the state. It is our understanding that this resulted in both a decreased return in beneficial use taxes generated as well as a defacto state subsidy to attract development to that site away from other private land sites by offering a longer period for implementation of a lease rate review process established for these lands. This is an area that we feel needs greater analysis within the PEIS. Development permitted on state lands should not result in false economic growth that can destabilize the local tax-base by shifting the location of, for example, retail or other commercial uses to state lands as a result of “loopholes” that allow state lands to create a tax-shelter.
- In management of state lands for the benefit of the trust, it is recognized that this needs to be done with consideration for the goals, needs and assets of the local community. The state and local governments have common interest in areas such as economic development and affordable housing. Without clearly established goals to guide real estate management decisions and active coordination with other state agencies to achieve these goals, less desirable development for the long term economic and quality of life interests of the community and trust may result. This was evident in the case of Section 36 in Kalispell where changes to land use plans to accommodate development proposed by DNRC on Section 36 were based on a plan that called for the development of a high-tech business park. A developer was semi-officially “endorsed” by the local DNRC office and invited as a spokesperson to numerous community meetings as capable of delivering just such a development if the local land use plans were changed to accommodate this development. The plans were changed. This developer, however, quickly disappeared after the land use plans were changed, and in fact was soon after shown not to have been capable of delivering on the proposed development scheme.

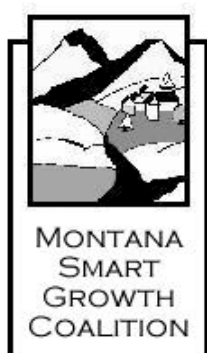
Furthermore, despite a two-year period established to develop the concept of and attract needed resources for a high-tech business park, there was no structure in place to insure that DNRC utilized its own and other state resources to meet jointly established and publicly proclaimed goals for this neighborhood plan. Instead, this land is now being used for retail development (a Lowes and Costco), with little to no follow through on efforts to attract better paying skilled work or meet the affordable housing needs of the community. Private lands already zoned for commercial uses in the area remain underdeveloped.

This PEIS should evaluate the structure or policies needed to insure that the DNRC can utilize its own, and the resources of other state agencies, to meet jointly established and publicly proclaimed goals for neighborhood plans, or other land use, transportation, affordable housing or economic development plans, associated with development on state lands in relationship to the community in which they are located. Neighborhood plan goals being discussed in association with the Whitefish state lands would require possible intergovernmental support for legislation, bonding, or phased conservation strategies that, in the long term,

may enable the school trust and the local government bodies to better achieve identified goals.

- The development of state trust lands for commercial, industrial, and residential uses may also place the state trust in the role of competing for services that receive support from federal and state sources that derive their revenue in part from the taxes generated by the citizens of Montana. School trust lands, however, do not generate tax funds for these services. The question then arises of how the allocation of these limited resources should be made for resources such as sewer treatment plants, roads, and such, when state lands become in competition with private lands for these limited resources. Additionally, clarification needs to be given to the way local fees and impact fees will also be applied to state lands. There is, for example, an interesting situation developing on Section 36 in Kalispell. There the DNRC is proposing that the Federal Highway Department be responsible for the purchase of right of way for a Kalispell By-pass that has been planned for over ten years. Yet the development potential of these state lands is enhanced by this road being built for the state through Section 36 at no cost to the state. The State in turn may need to incur additional costs of redesigning this by-pass and the intersection region of Reserve and US 93 as a result of the type of development being approved on Section 36 that is generating significant more traffic than its former agricultural uses. An analysis should be done of the cost-benefits that the private sector will incur if state lands are allowed to have equal access to state and federal sources of funding to which they have never contributed.

In closing, we encourage you to allow the Whitefish state land planning process to be given time to be more fully developed prior to closing your scoping for this PEIS. Additionally, we encourage you to analyze more carefully concerns already raised in the process of development that is occurring on Section 36 in Kalispell. Thank you again for this opportunity to provide input in this process.



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AERO
American Conservation Real Estate
American Farmland Trust
American Wildlands
Artisan LLP
Beartooth Mapping
Bitterrooters for Planning
City of Bozeman, Planning Board
Citizen Advocates for a Livable Missoula
Citizens for a Better Flathead
Clark Fork Coalition
Downtown Billings Partnership
Drake Engineering
DT Architecture
Flathead Lakers
Flathead Resource Organization
Friends of the Bitterroot
Greater Yellowstone Coalition
High Plains Architects
HomeWORD
HWY 93 Citizen Coalition
Montana Environmental Information Center
Montana Human Rights Network
Montana Audubon
Montana Association of Conservation Districts
Montana Farmers Union
Montana PIRG
Montana Wildlife Federation
National Center for Appropriate Technology
Northern Plains Resource Council
Plan Helena
Park County Environmental Council
Smart Growth Missoula
Sierra Club, Montana Chapter
Soil & Water Conservation Society, Montana Chapter
Sonoran Institute
Tracy-Williams Consulting
Wheeler Center
Women's Voices for the Earth

August 16, 2004

To: Trust Land Management Division of the Montana Department of Natural Resources and Conservation.

From: Tim Davis, Executive Director Montana Smart Growth Coalition.

RE: Comments on the Draft Real Estate Management Programmatic Environmental Impact Statement.

Thank you for the opportunity to comment on the June 21, 2004 Draft Real Estate Management Programmatic EIS. The forty member groups of the Montana Smart Growth Coalition appreciate all the work and the amount analysis and study that went into the DPEIS.

Unfortunately, we feel that DPEIS lacks the criteria and direction necessary to maximize the long-term revenue generation for trust beneficiaries and to protect Montana's environment or tax payers from adverse and cumulative impacts that real estate and development decisions on state trust lands could potentially have - regardless of which of the proposed alternatives are selected as the preferred alternative.

The DPEIS seems to be based on the false assumption that a large percentage of school trust lands should be made available for either commercial leases or for sprawling rural subdivisions - regardless of the impact that the development will have on local infrastructure, on the efficient and attractive future growth of communities, on the health of downtown areas, or on the environment.

The DPEIS as written would lead to a reactive system the would neither maximize the long term revenues of the trust lands nor lead to attractive and efficient development.

We recommend that the PEIS be changed in the following three ways:

1. Replace the current assumptions that the DPEIS is based on with the goal that REMB will proactively analyze trust lands and designate a small and manageable number of trust lands that are ripe for development and then actively promote the development of those lands in an attractive, efficient, and profitable fashion.
2. Change the filter process to significantly limit the scope of land to be considered for either sale or development in order to maximize long-term income for the trust beneficiaries and to ensure the efficient use

of REMB resources and staff time while maintaining the largest possible base of school trust lands; and,

3. Adopt performance standards or outcome criteria that all developments on trust lands must adhere to in order to maximize long-term profits to beneficiaries while minimizing the impact of the development on infrastructure, taxpayers, and on the viewshed, water quality, agricultural land based, and wildlife.

Performance standards/outcome criteria that should be included in the PEIS and that all developments on school trust lands, whether the land is sold or leased, should adhere to include:

1. Compliance with local plans (i.e. growth policies, neighborhood plans, local transportation and other infrastructure plans), regulations, and MEPA;
2. For lands adjacent to cities and towns, development at urban densities with mixed uses and interconnected street system
3. In rural areas, where development is appropriate, cluster developments away from neighboring open lands with at least 60% of land protected in perpetuity either through a conservation easement or deed restriction and if the land contains crucial winter range for big game species, at least 90% of that land should be protected;
4. Development pays for off-site and on-site impacts on infrastructure and services;
5. Analysis and mitigation of adverse and/or cumulative impacts on water quality and quantity, wildlife corridors and habitat, local agricultural land base, infrastructure capacity and services, and economic health of downtown business districts; and
6. Location and design of development to minimize aesthetic impacts.

By adopting these outcome criteria the PEIS will create an efficient development process for the development of selected school trust lands - *because no matter who develops the land, whether it is the state or a private developer, the state will be certain that the development will be of a high quality* while protecting the amenities that make trust lands valuable in the first place and using REMB staff and infrastructure efficiently.

These outcome criteria will have several benefits including: protecting the long term revenue generating potential of trust lands by protecting the amenities that make the land valuable; ensuring that development on trust lands will not create "nightmare" examples of bad development that will lead to a backlash against the development of school trust

lands; and will not induce growth in locations that will raise taxes and/or degrade local roads, water quality and quantity, aesthetic values, and other amenities.

These criteria will also help to ensure that REMB and the Land Board are presented with the best possible development option for the land rather than simply the easiest development option. For example, rather than simply selling a lot of state trust lands five miles from a town to be subdivided into 10 acre lots. These criteria will help ensure that cluster development and similar community friendly development options are considered.

These criteria will maximize the income from the development of trust lands in the following ways:

1. Home buyers in Montana and elsewhere have shown that they will pay a premium for access to and a view of permanent open space so that same lot would generate the same amount or more income to trust beneficiaries if homes are clustered in one area while a majority of the land remains in open space where it can generate timber, ag, or grazing revenues.
2. Spending less money for on-site and off-site infrastructure by either clustering homes or developing a mixed-use commercial/residential development that extends a city or town's street network;
3. Protecting the amenities that make the land valuable; and
4. Ensuring that land is not developed until it is ripe and most valuable to trust beneficiaries while maintaining the overall land base and the sustained yield it represents.

We recognize that REMB will not be the developer on most school trust lands. However, that does not limit REMB from being able to use development agreements, contracts, deed restricts, and covenants to implement the criteria as part of development on state trust lands.

Detailed comments on the DPEIS include:

- 2.9.2.1 - 3: The DPEIS states that REMB will use exemptions to remain competitive whereas 5.2 states that "REMB ... intends to waive these rights of exemption" and "[adhere] to local land use regulations." The PEIS should clear up these contradictory statements by stating that REMB will comply with both local regulations and plans as well as with MEPA, but then goes on to say that they will seek to use exemptions from either where it helps maximize revenues.
- 2.9.2: The DPEIS states incorrectly, as do other places in the DPEIS, that "development on school trust lands would contribute to those cumulative impacts [that residential, commercial, and industrial development has on the environment]. However, these impacts would occur regardless of whether the development occurs on state lands." The PEIS should be amended to state that "the location and design of development on school trust lands will determine the type and amount of adverse and cumulative impact that the development will have. REMB shall seek to minimize any

adverse and cumulative impacts through the criteria above and locating and designing development appropriately."

- 2.9.3.2 (B & B-1): This section needs to be changed to clearly state that REMB will not seek to undermine local land use planning goals and regulations for the sake of short term profit.
- 2.9.3.3 (C & C-1): This section seems to indicate that REMB will act too aggressively and would undermine local planning goals and regulations.
- 2.9.4.2 and 3.4.4.2: These sections provide the start of what we think that the PEIS should clearly state -- that REMB will enter into and provide resources for local cities and counties to conduct detailed land use planning of future urban areas, areas that will transition to urban development in the next 20 years, and areas that will and should remain rural. REMB should then assist local governments in detailed infrastructure planning for urban and transition areas and establish standards that will ensure the future development includes urban standards in urban areas, allows for efficient future urban growth in transition areas, and protects rural amenities. This type of detailed planning will benefit trust beneficiaries in two ways: 1) by detailing the type of infrastructure that will be available to a particular parcel of trust land and thereby speeding up the appropriate development potential; and 2) by protecting the community and natural amenities on and around parcels of trust land.
- 2.9.5.3 and 2.9.5.5: While the DPEIS acknowledges to the fact that conservation will allow some ag, grazing, and timber use to continue, these sections of the PEIS need to much more clearly state that REMB will encourage conservation not only through purchase of development rights but also through cluster/conservation development on lands designated for residential development that will allow continued farming, ranching, and timber harvest will not only raise money from these activities. This type of cluster/conservation development has the benefit of bringing in money from real estate sales of the easements or cluster development while also minimizing the cost to tax payers to provide infrastructure and services to these areas and will protect the amenities, like quality of life and open space, that make people want to live and work in Montana.

The DPEIS does state that none of the alternatives will discourage conservation, but unfortunately it does not include a criteria that directs REMB to conserve land and local resources as part of any alternative and development decision. For those reasons, criteria should be included to ensure that all developments, leases, or sales takes into account the long term economic benefits, impact on amenities and local tax payers, and conservation development alternatives and benefits. For these reasons, we feel that B-1 provides the best option for long-term revenue maximization because it will develop lands too quickly and inappropriately as long as criteria like those proposed above are considered.

- 2.9.7.3: Again, C and C-1 are simply too aggressive and would undermine the long term economic benefits of state lands to the primary objective, revenue generation. The rapid divestiture of state lands for sales and development without taking into account efficient land use, local planning goals, conservation development alternatives, and other criteria that would protect long term values would dramatically diminish the long term health of trust lands and revenue by undermining the amenities and economic assets that the lands provide.

Table 2-19:

- (6) This item needs to be changed to make it clear that REMB will not seek exemptions from MEPA and local land use regulations and planning compliance;
- (7)-(9) The funnel here is too coarse and much too focus on process rather than outcomes. For that reason, again, the PEIS and Land Board should clearly establish a set of outcome criteria that will protect the natural amenities, efficient use of land, water, and taxes, as well as requiring that conservation alternatives be considered in order to protect the long term value of trust lands.
 - Without criteria stating that development on state lands shall pay for the on-site and off-site impacts on roads, water quality and quantity, emergency services, police and fire protection, etc., the development or sale to school trust lands will result in a form of stealing from local tax payers (Peter) to pay developers and REMB (Paul). For example, if development of trust lands dumps 100 new cars on to a county road outside five miles outside without the developer paying to upgrade that road to handle the new traffic then local taxpayers will eventually have to foot the bill to rebuild the road - a multi-million dollar subsidy.
 - The development of trust lands does not need to comply with the rational nexus and proportionality that the courts have said should apply when requiring developers to pay for the impact that their development will have on infrastructure and services because the development will need to enter into a contract to develop or purchase trust lands and the requirement that they development of trust lands pays its own way could be include in either a lease contract or in a deed restriction. In other words, these impact costs would be applied on the development as part of a free market agreement between REMB and the developer - if he doesn't want to pay for impacts then he will not be the right person to develop that piece of trust lands. This is another reason that Alternative B-1 is the most attractive - because it would create the revenue, time, and impetus for REMB to work with local governments to plan for the efficient future growth of infrastructure and services.
 - We would also recommend that the PEIS establish a taskforce of all state agencies involved in infrastructure development, wildlife, water, and the management of other state resources to discuss the most efficient use of tax and natural resrouces as part of any development of trust lands - this could lead to maximizing and leveraging of state agency resources and minimizing negative impacts of development.

For example, if a parcel of land outside of a town were to be developed near a state highway, the Dept of Transportation and Board of Housing might be able to bring in funding to provide roads and enable the development to include affordable homes.

- 3.4.4.2: The PEIS should more clearly state the REMB will work to help local governments plan future efficient infrastructure and services and state that REMB will ensure that development will pay its own way.
- 3.4.5.1: This section needs to be changed to include the public cost of providing services as part of any income calculation.
- 4.1.2: As part of these GIS growth projections REMB and the PEIS should show how land use in Montana is projected to grow by 2025 including where that growth will take place and at what densities and at what impact on roads and other services. The PEIS should establish a criteria stating that REMB shall develop urban lands at urban densities first and shall seek to develop rural lands using conservation and cluster development. This is consistent with other state trust land programs. For example, New Mexico is focusing its efforts on trust lands near communities with a population of 2,500 and up.
- 4.2: The table does not compare population growth to growth in land used to accommodate population growth and where will that land be located. This analysis needs to be included in the PEIS as well as the difference between the percentage of population growth versus the percentage in the growth of land to accommodate the population growth. These maps and projections should be improve REMB's analysis of which lands and at what rate and densities those lands could and should be developed. This type of analysis should be made available to help local governments plan for future growth and infrastructure where school trust lands might be developed. Specifically, the table is nearly meaningless without these land use projections and density comparisons which are necessary when discussing the location and need for the development of trust lands.
- 4.2.1 (B and C): It is clearly false for the PEIS to claim, as it does here, that industrial, commercial, or residential development in alternatives B or C will "not be growth inducing." Clearly, the location of the development of trust lands will have the result of inducing growth on those lands and on the lands around them. The growth may have been coming anyway, but the most important factor when determining the impact it will have is not that we will grow, but where that growth takes place and how it is designed. The same is true for conservation, it will effect how and where growth will locate. The PEIS recognizes the growth inducing impacts of conservation and needs to do so with other land uses and establish criteria that will ensure that trust land decisions will not induce growth in inappropriate locations and with inappropriate designs - for example, these criteria would help ensure that a subdivision with 100 houses is not developed on trust lands in a rural area far from town.

- 4.2.1.2: Cumulative impacts of the development of a particular piece of land or trust lands, like inducing growth above, will depend upon the location and design of the development. For example, Alternative C without any criteria that will ensure that development is location appropriate and that will not have a negative cumulative impact on water, wildlife, or roads could have a cumulative impact on all three by inducing rapid development in inappropriate locations. Local regulations, including sanitation regulations, do not necessarily take into account cumulative impacts and it would be a tragedy if the development of state lands resulted in cumulative impacts that could include septic systems on school trust lands poisoning drinking water of neighbors, or causing tax payers to pay \$10 million to rebuild a county road that has been degraded by the impact of new traffic caused by development on trust lands, or having development on trust lands cut off an important wildlife corridor. For these reasons, we believe that Alternative B-1 with a clear set of development criteria should be the preferred alternative.
- In this section, the DPEIS falsely states that economic conditions will not be adversely affected by the development of trust lands. Inappropriate development of trust lands could undermine local infrastructure, spur sprawling development, ruin an important natural amenity like a viewshed, or undermine a downtown business district by enabling a big box development or mall to locate outside of town. For that reason, clear criteria need to exist that will protect local amenities and infrastructure. The PEIS should also direct REMB to be involved in helping develop local plans and standards that are essential to protect the long-term interest of trust lands - not just the short term.
- 4.2.1.5: The statement in this section that short-term and long-term productivity are identical is false. Short-term gains can often undermine the amenities that are crucial for long-term gain. However, if long-term criteria are in place then short term revenues can be raised within a predictable development process, but without criteria protecting the long-term revenue generating potential of trust lands will certainly be lost. For example, if development is allowed at too low of a density on the edge of town it will be too expensive to retrofit the infrastructure needed to infill and maximize long term income in the future. Similarly, if development is induced in rural areas outside of towns then the demise of downtown business districts and of local amenities like open space will have a dramatic effect on the long-term marketability. Trust land development need to take into account the long term impacts and revenues.
- 4.2.4: The PEIS should clearly state that REMB will take part in the local planning as a means of identifying which lands should be acquired to maximize revenue generating potential in the long term.
- DEQ clearly acknowledges that it does not take into account cumulative impacts of subdivisions on water quality and quantity. This is just one reason that the PEIS cannot claim to have no cumulative impact if it simply complies with state sanitation

and subdivision standards. Therefore, the PEIS should be amended to require that any development on trust lands needs to address cumulative water and sanitation impacts and mitigate those impacts. Otherwise, the development will be passing the cost of future water contamination or loss of water quantity to neighbors who might have to pay to drill deeper wells or have retrofit wells and sewer systems at a much higher cost in the future.

A few examples of Montana's rising groundwater contamination:

- In 1973, the U.S. Geological Survey found a median nitrate concentration of 1.0 mg/l in the Helena Valley—a safe level. After nearly three decades of suburban sprawl, readings have jumped to between 7.89 and 20.10 mg/l—well above the 5.0 mg/l the state deems threatening enough to limit septic use.
 - In the Upper/Lower River Road area outside Great Falls, more than 700 homes, most with septic tanks and wells, have been scattered over 3 sq. mi. in recent decades. After studying the area's groundwater, state and local governments found the pollution so great that they recommended homeowners shell out for a community water and sewer system. The cost would run into the millions of dollars.
 - A 1996 study of septic systems and wells in the Missoula Valley found that between 9.4% and 15.3% of sampled wells had bacteria contamination from septic wastes. The contamination, warned the report, puts several parts of the valley at risk of waterborne disease outbreaks.
 - Other areas that have shown high levels of nitrates include the Summit Valley area in Silver Bow County, as has the Four Corners area in Gallatin County.
 - In addition to contamination, drinking water wells have gone dry as a result of unplanned development in Sypes Canyon on the west slope of the Bridger Mountains, in the North Hills of Helena Valley, in the Pine Hills area near Miles City, in the Larson Creek area in the Bitterroot, and in the Yellowstone Valley west of Billings.
- The PEIS again does not address the fact that location and design will be the primary factors on whether or not the development of trust lands will have an adverse or cumulative impact. Clearly, inappropriately placed and poorly designed development will effect aesthetics which is obviously one of the key natural amenities that Montana offers people coming to live and work and buy

land here. That said, we do support the proposal to require "the incorporation of natural landscape retention in residential development design" but would like the PEIS to add "development on trust lands shall not be allowed to break the ridgeline as viewed from any public right of way." The PEIS should also include criteria to require that industrial, commercial, and residential developments be designed and located in attractive, community appropriate motifs that enhance the aesthetics of the community especially when located at or near a community's gateway or entrance.

- 4.2.15.2: While we support the statement under Alternative B and B-1 that "REMB would direct some of its staff resources to overall community improvements planning" we think that it is crucial that the PEIS directs REMB to assist local governments near school trust lands that have a high probability of being developed to be proactive in planning for the most efficient use of infrastructure to service the future growth of urban areas over the next 20 years. It is also essential that the PEIS includes the criteria to ensure that the development of trust lands will pay its own way and will minimize adverse or cumulative impacts by either inducing growth or damaging aesthetics, water quality, wildlife, or other natural amenities that are crucial to long term revenue generation.
- 4.3.1: The PEIS should direct REMB to produce an annual report that details how REMB is doing implementing the criteria recommended above and on the questions on section 4-55. These questions should be expanded to include development and service related expenses incurred by REMB, the developer, and local taxpayers and compare these costs to revenues generated on a project basis and cumulatively over time. REMB could relatively easily establish a database where economic statistics and GIS information are entered on a daily basis as part of REMB's daily work and made available on-line - this would help improve REMB's efficiency by making it clear how they are doing at carrying out the provisions of the PEIS.

cc:

Montana State Board of Land Commissioners Brown, McCulloch, McGrath, and Morrison.

August 19, 2004

VIA ELECTRONIC DELIVERY AND FEDERAL EXPRESS

Trust Lands Management Division
Montana Department of Natural Resources and Conservation
1625 11th Avenue
Helena, MT 59620

Re: Public Comments of Lincoln Institute of Land Policy/Sonoran Institute Joint Venture on the June 21, 2004 Draft Real Estate Management Programmatic Environmental Impact Statement

Dear Sirs and Madams:

Thank you for the opportunity to comment on the Department of Natural Resources and Conservation's (DNRC) Draft Real Estate Management Programmatic Environmental Impact Statement, dated June 21, 2004 (Draft PEIS). We commend DNRC for its commitment to develop a transparent framework that will guide the Real Estate Management Bureau (REMB) and the Trust Lands Management Division (TLMD) in meeting its trust responsibilities while considering environmental factors and protecting the future income-generating capacity of the land.

I. Background

Over the past year and a half, the Sonoran Institute (SI)² and the Lincoln Institute of Land Policy (LILP)³ have been engaged in a joint venture program on state trust lands in the West. The joint venture seeks to assist efforts to modernize state trust land laws and regulations in key western states; to foster education and research efforts that focus on key issues related to state trust land administration; to increase public awareness of the resource and economic values of state trust lands along with the impacts of state trust land management decisions on local communities and implications for public finance; to develop and implement model projects designed to explore innovative approaches to collaborative land use planning and conservation management of state trust lands; and to provide relevant technical information and tools to decision makers and agency staff

² SI is a non-profit conservation organization based in Tucson, Arizona, with offices in Phoenix, Arizona and Bozeman, Montana. SI works throughout the intermountain west, with regional work in the Sonoran Desert and the Northern Rockies, as well as west-wide programs in socioeconomics, land use planning, and state trust lands, among others. SI distinguishes itself through a commitment to community-based and collaborative conservation work, with a strong emphasis on providing information and technical assistance to guide good decision-making by local communities and local, state, and federal resource managers.

³ LILP is a nonprofit educational institution based in Cambridge, Massachusetts, and offers courses, conferences, and other outreach programs in land use planning and land policy to both professionals and nonprofessionals, funds and conducts research on land policy issues, and publishes a variety of materials in academic and non-academic settings.

involved in state trust land management. In pursuit of these goals, the joint venture is currently engaged in a number of projects and programs around the intermountain West, including research and policy analysis with regard to trust management strategies, community land use planning projects involving state trust lands in Arizona and Montana, and participation in a comprehensive proposal to change the laws governing trust land management in Arizona.

The type of issues addressed in the Draft PEIS and the type of public process that the state is currently engaged in are at the core of the LILP/SI joint venture goals and activities.⁴ As the West continues to urbanize and the regional economies continue to shift away from more traditional, natural resource management towards the emerging economies of the information age, trust land managers across the West are recognizing a need to broaden the land use activities of their trust land portfolios to meet their fiduciary responsibilities, the demands of urbanization as well as growing interests in the recreational and environmental values associated with their land portfolio. These larger shifts implicate not only the traditional fiduciary responsibilities of trust managers, but also important public values that are frequently associated with trust lands – particularly interests in conservation and quality growth that promotes vibrant economies, sustainable communities, and healthy landscapes.⁵

A central focus of the LILP/SI joint venture relates to the importance of balancing public values with the fiduciary responsibilities of trust land managers. Our work thus far has suggested that consideration for public values is an essential practical component of the fiduciary responsibilities of trust managers. The failure to consider these values inevitably leads to conflict, and, ultimately, more constraints on trust management and more uncertainty – which in turn translates into reduced economic value for trust beneficiaries. With particular regard to the commercial and residential development of trust lands, our experiences thus far have revealed several important lessons:

- By identifying a clear subset of trust lands to be considered for residential, commercial and industrial development within defined timeframes, and by developing related disposition plans that focus on these lands, trust managers can provide certainty to local communities while focusing limited resources on the development of parcels that will return the highest values to trust beneficiaries.
- Planning lands collaboratively with local communities can reduce conflict, identify lands that have important public values, minimize the risk of poorly-planned development that is detrimental to the interests of local communities and the long-term value of trust lands in and around those communities, and create effective and creative implementation strategies that meet with the needs of the trust and the local community.

⁴ Andy Laurenzi, “State Trust Lands: Balancing Public Values and Fiduciary Responsibility,” Land Lines Magazine, pp. 1-4 (July 2004).

⁵ Ray Rasker, et. al., Prosperity in the 21st Century West: The Role of Protected Public Lands, Sonoran Institute 2004.

- Good land use planning adds value that will generate higher returns when trust lands are disposed.

With these lessons in mind, we have undertaken a comprehensive review of the Draft PEIS in hopes of providing some constructive feedback on DNRC's proposal.

Overall, we believe that the “funnel filter” approach proposed by DNRC has significant merit as a method for administering trust lands, and the development and application of the proposed analytical tools can serve as a progressive model for other states that are assessing the development potential of their portfolio. We have identified six areas in which we believe merit additional consideration and may strengthen the proposal, both in terms of increasing potential benefits to trust beneficiaries as well as providing increased consideration for public values and minimizing potential conflict with local communities. We have divided our comments into three major areas: recommendations related to the goal of the program, recommendations on the development and application of the funnel filter and its component elements, and recommendations related to the assessment of the economic and environmental impacts of the alternatives. These comments follow in Sections II-IV below; Section V of our comments proposes the consideration of a new alternative that attempts to better illustrate the application of our recommendations.

II. The Draft PEIS Lacks a Clearly Defined Goal

The alternatives in the Draft PEIS identify five different scenarios for trust lands disposal by REMB: an aggressive strategy in which REMB would actively seek to dispose of state lands in each land office area for commercial, industrial and residential development in an amount equivalent to approximately twice the proportionate quantity of private lands developed for those purposes in the same land office area (Alternative C), PEIS Sec. 2.6.4, p. 2-44; an active strategy in which REMB would seek to dispose of trust lands in an amount that is approximately proportionate to the quantity of private lands that are developed (Alternative B), PEIS Sec. 2.6.2, p. 2-37; and a less active strategy (similar to the current state of affairs) in which REMB would seek to dispose of trust lands in amounts that are equivalent to approximately half the proportionate quantity of private lands that are developed (Alternative A),) PEIS 2.6.1, p. 2-31; and two “conservation” alternatives, Alternatives C-1 and B-1, in which REMB would seek to dispose of approximately half the land proposed for residential development under Alternatives C and B, respectively, for conservation purposes (although Alternatives C and B would not prohibit conservation sales or leases, these sales and leases would not be “counted” towards the acreages proposed for development under the alternatives), PEIS Sec. 2.6.5, p. 2-50; PEIS Sec. 2.6.3, p. 2-43. Each of these five alternatives is tied to one of three acreage ranges for area of trust lands that would be affected by development under the aggressive, active, and less active scenarios.

In conversations with REMB staff, we were informed that the acreage estimates associated with the different alternatives are not in fact intended to be disposition “targets” which REMB would attempt to achieve; rather, the estimates are intended to

illuminate three different “management philosophies” for state trust lands that are embodied in the alternatives – i.e., much more aggressive disposal, moderately more aggressive disposal, and a disposal strategy that would be similar to the status quo. See PEIS, p. E-8; Sec. 2-4, p. 2-28. (We note that this is somewhat confusing, since the only apparent difference between Alternatives B and C and Alternatives B-1 and C-1 is that under the conservation alternatives, the conservation sales and leases would not “count” towards the acreages proposed for development; this implies some sort of acreage target. We suggest that the proposal is ambiguous in this regard and should be clarified.)

As discussed elsewhere in our comments below, we believe that some of the assumptions that underlie these management philosophies may require further analysis. Regardless, these philosophies do not seem to be clearly connected in the Draft PEIS to the larger goals of DNRC as the manager of the state land portfolio as a whole, nor do they appear to be tied to an identifiable goal for REMB as a real estate manager.

As the manager of a perpetual trust, we assume that DNRC intends to maintain a diverse trust portfolio, and that it intends to do so essentially in perpetuity. As such, we also assume that for the foreseeable future, DNRC only intends to invest a small portion of its overall portfolio into commercial or residential development use, with the vast majority of state lands remaining in sustainable natural resource uses like timber, agriculture, grazing, and conservation, or long-term non-renewable resource extraction uses such as mining and natural gas development. This seems consistent with the alternatives presented in the Draft PEIS, since even under the most “aggressive” of the three disposition philosophies, Alternative C, DNRC estimates that it would dispose of between 20,478 and 34,123 acres for commercial, industrial, and residential development out of the state’s 5.1 million acres of trust land over the next twenty years, or only around one half of one percent of the total trust portfolio. See Tables 2-14 and 2-15. p. 2-44.

However, despite the fact that virtually all of the remaining portfolio will be managed for other purposes by DNRC, the Draft PEIS appears to assume that virtually any parcel in the entire trust portfolio could be made available for commercial, industrial, or residential development if in staff’s evaluation, the proposed “funnel filter” process demonstrates that a proposed development project would be viable on that parcel. It therefore appears that DNRC implicitly regards development for commercial, industrial or residential use as meriting consideration on every parcel of trust land, regardless of other trust management priorities. We would suggest that this assumption may not be well-founded, since as a prudent trust manager, there may be any number of considerations that DNRC must undertake before concluding that a commercial or residential use is in fact the “highest and best use.” However, because the relationship of the proposed REMB program to DNRC’s larger portfolio management strategy is not clearly spelled out in the Draft PEIS, it is extremely difficult to evaluate whether and to what extent the proposed REMB program and the various proposed alternatives are consistent with this management strategy, the mission of the agency, and with the fiduciary responsibilities of DNRC as a trustee.

It appears that under this proposal, decisions regarding the appropriate use of trust lands for development would largely become a collective, internal staff decision that would consider a variety of factors illuminated by the funnel filter, but which could be second-guessed at the project environmental assessment stage. We would therefore suggest that DNRC clearly identify the proposed relationship of REMB's ongoing disposal activities to DNRC's continuing trust management goals, to establish clear objectives to guide REMB activities and to place more emphasis on a priori decision-making with respect to lands under consideration for disposal for residential, industrial or commercial uses (or other special uses). In much the same way that lands are classified as forest land suitable for timber production, we suggest that REMB could identify a subset of lands that can be classified as suitable for residential, industrial or commercial development based on variety of factors, many of which are already embodied in DNRC's proposed landscape-level funnel filter approach.

Without an articulated goal, it is difficult to evaluate which alternative should be chosen in the final PEIS; i.e., because the alternatives were not developed with regard to a goal there is no standard against which the alternatives can be evaluated. As such, the "alternatives" evaluated in the PEIS are less "alternatives" than they are a description of five slightly different strategies that REMB might pursue in disposing of trust lands for commercial, industrial, and residential development, with project selection driven by internal evaluations of proponent or staff driven proposals. Just as importantly, the lack of a goal with benchmarks will make it difficult to justify staff decision-making and to prioritize and direct REMB resources towards a specific end; moreover, since the objective of the program is not clearly defined, it will be difficult to evaluate the success or failure of the chosen alternative and the overall effectiveness of REMB programs at the end of the first five-year period.

We therefore suggest that DNRC clearly identify the goal(s) of REMB's land management program, as well as relevant benchmarks that are quantifiable and easily assessed. Examples of REMB goals might be, for example, to increase trust revenue by a certain percentage over a certain period, to diversify the trust portfolio to reflect a certain percentage of ownership in various uses over a certain period, to dispose of lands that meet a specified set of characteristics over a certain period, to obtain value for the trust while conserving lands that meet a specified set of characteristics, and so forth.

III. The Funnel Filter Process Could be Significantly Enhanced

A. The "funnel filter" should be used proactively to identify a subset of lands with high development potential, focusing limited REMB resources and providing increased certainty for local communities and stakeholders.

DNRC proposes a "funnel filter" methodology for identifying and evaluating development opportunities on state trust lands. The filter process would involve a progressive analysis of development suitability on state trust lands, beginning with a "physical environment filter" to remove from consideration lands that are not suitable for development due to slopes and floodplains, then applying a "transitional filter" based on

a locational attributes analysis to identify lands with high, medium, and low suitability for development, and finally applying a “market filter” to identify what proportion of lands anticipated for growth can reasonably be “captured” by the REMB. This landscape-level analysis would be followed by a project-level analysis of market demand and economic factors, local planning, MEPA analysis, and analysis and application of other regulatory constraints and requirements in order to identify and evaluate development opportunities. PEIS Sec. 2.3.1.7, pp. 2-18 to 2-19, and Figures 2-3 and 2-4, pp. 2-16 to 2-17.

We believe that the “funnel filter” concept offers a valuable tool for evaluating development opportunities on state trust lands. As discussed further in Sections III(C) – (F) of our comments, we suggest that some additional analysis at each level of the filter process could substantially improve the results of the filter analysis. However, we are also concerned that as the filter tool is currently proposed to be applied, REMB will be continuing to function in an essentially “reactive” mode to project opportunities, rather than taking advantage of a more focused, proactive approach.

At first reading, the application of the landscape level filters would seem to limit the pool of lands that would be considered by REMB for development projects. However, the Draft PEIS suggests that although the application of these first three stages will be used to inform the alternatives selection in the PEIS and inform the various “philosophies,” REMB would not actually exclude any trust lands from consideration for development at this stage. Instead, the filter tool will essentially be applied on a project by project basis to inform project selection by REMB staff from a pool of projects proposed by staff or outside interests. Once a proposal was identified, the filter would be used to rank that proposal in comparison to other proposals that REMB might be considering.

Our experience suggests that this strategy may serve to increase the potential conflicts over the development of trust lands, as it will provide no certainty to interested parties – such as local communities, recreational users, conservation groups, and state land lessees – that a given parcel of trust land will or will not be considered for development by REMB in the near term. Since the entire 5.1 million acre trust portfolio would be potentially open to development proposals from outside proponents or REMB staff under the proposal, anyone interested in the use of a trust land parcel for purposes other than development could interpret this as a potential threat to their interests.

The Whitefish neighborhood planning process may present an example of the problems associated with keeping the entire trust portfolio available for development consideration. Our understanding is that DNRC had initially intended that the Whitefish planning process would result in a generalized set of goals, policies and performance guidelines for the Whitefish lands that would be applied on a project-by project basis to potentially any lands within the entire 13,000 acres. Because DNRC initially suggested that all 13,000 acres were under consideration for potential proposals, there was a tremendous amount of uncertainty and trepidation among community residents with regard to the agency’s plans for the land; the reasonable assumption was that any portion

of the 13,000 acres could be at risk from development – and because a project proponent could come forward at any time with a proposal the timeframe for decision-making could be short if the community wanted to propose an alternative implementation strategy.

The community did eventually grow to support the application of a “funnel filter” type of approach in planning the Whitefish lands; indeed, the community’s own land use planner has thus far applied a substantially similar method. This consultant worked with existing GIS data and information derived from the numerous public meetings to develop a plan that identified development opportunities based on proximity to infrastructure, access constraints, physical suitability, water quality constraints, and other criteria, as well as identifying “non-development” lands based on slopes, watershed values, fire hazards, ecological sensitivities, and high value for alternative uses such as recreation, timber, and so forth. Nevertheless, because all 13,000 acres were at least potentially under consideration for development, there seems to have been a common and persistent perception that the entire set of lands are at risk and that the only way to protect trust lands that are economically or environmentally valuable to the community would be to ensure that they are protected through purchases or permanent restrictions against development. We suggest that this perception has fostered a climate of conflict that continues to hamper the process in Whitefish, and this same perception may play out in a similar fashion in other communities if it is perceived that all trust lands are available for development purposes.

We also believe that under the proposal, REMB will place too much reliance on a proponent driven strategy – rather than proactively identifying a more limited set of lands on which projects should be identified or solicited by REMB staff based upon an a priori application of the funnel filter so as to identify those lands which are likely to provide the highest returns for the resources invested (i.e., staff time and budget). On a related note, we suggest that a disproportionate share of staff time will likely be engaged in assessing proposals that have little merit from a trust perspective. Indeed, even under the more “aggressive” strategies that are proposed in Alternatives B and C, the selection of lands for “proactive” development projects would appear to remain an essentially discretionary activity on the part of REMB staff. Given the unreasonably large land base that will still be eligible for development after the physical filter is applied, there will be an unavoidable tendency for DNRC offices to rely on project developers whose interests are not likely to coincide with the interests of the trust and its mission. By contrast, a focused set of lands would allow REMB to focus its activities on actions which are likely to bring the most value to the lands through the land use planning and entitlement process and by taking advantage of local market conditions.

Another consideration is that, in the absence of an identified and limited universe of trust assets to be considered for development, it will only be possible to evaluate individual development projects on a case-by-case, comparative basis. As a practical matter, development projects generally foreclose other opportunities for a land parcel, and, given limited staff and budgetary resources, commitments to projects also foreclose opportunities on other lands. Because projects will not be able to be evaluated in relationship to a disposition strategy for a defined subset of high-value lands, it will likely

be difficult to evaluate, from a fiduciary standpoint, the advantages or disadvantages of proceeding with any individual proposal versus seeking an alternative proposal elsewhere. Similarly, without a defined potential base of lands that would be targeted for disposition by REMB, there will be no way to evaluate REMB's performance as an asset manager overall; while REMB projects could be evaluated on their individual financial merits, these projects could not be evaluated in terms of their contribution to achieving a desirable rate of return on those lands that have the highest suitability for development.

Finally, it is difficult to understand how REMB will be able to deal objectively with the available land portfolio and focus efforts on entitling lands in a manner that will maximize benefits for the trust in the absence of a targeted portfolio; with the entire trust land base potentially open to proposals, REMB staff may spend much of their time responding to potential opportunities around the state that should not be under consideration to begin with due to low suitability or unfavorable market conditions. While the proposed approach will certainly provide REMB with the maximum degree of flexibility in selecting and developing projects, it will provide no guarantee that the agency's discretion is being exercised in a manner that is consistent with the best interests of the trust. At the same time, this strategy could make it difficult to respond to community interests and values with regard to trust lands, since the only opportunity to address community interests would be on a project-by-project basis, rather than in processes involving the prospective planning of lands that are suitable for future development. Given the size of the overall trust portfolio, there is a tremendous opportunity for REMB activities to benefit the trust, provided that sufficient investment is made up front in positioning the portfolio in an optimal fashion relative to the marketplace while considering environmental factors and community values.

We therefore suggest that, with the modifications discussed later in our comments, the funnel filter should be applied proactively to identify a meaningful subset of those trust lands that are the most highly suitable for development, and on which REMB will focus its interest and resources. Lands that are not within this subset would remain under management by other TLMD divisions for their long-term resource values, while periodic reviews (at least every five years with public comment) would allow TLMD to adjust to changing market conditions and trust management strategies). We suggest that the use of the filter mechanism in this manner would provide a number of benefits that make this approach far superior to a "reactive," proponent-driven approach in which the filter is applied on a project by project basis:

1. Pre-selection of lands will minimize conflicts over potential land development by providing certainty that other trust lands will not be considered for development use in the near term. This will allow REMB to focus efforts on resolving conflicts on those trust lands that are in fact best suited for development, and avoid conflicts on lands that are not likely to be developed in the near term.
2. Pre-selection will ensure that there will be a strong objective case for the development of a trust parcel prior to the time that a project is selected for the parcel, ensuring that projects will be identified at times and places that are most

advantageous to the trust, and that REMB will invest the state's limited staff, financial and real estate expertise on those lands most likely to result in enhanced trust revenues.

3. Pre-selection will ensure that REMB disposition proposals fit within TLMD's overall management strategy for the trust, since TLMD will be required to define in advance how trust lands should be positioned for potential development use vs. long term natural resource use.
4. Pre-selection will allow effective evaluation of REMB's performance as an asset manager, since there will be a defined asset base against which REMB's rate of return can be evaluated.
5. By focusing REMB on a reasonable subset of trust lands, communities will have advance notice of REMB's intended activities, providing an opportunity to address community values and concerns in a collaborative planning environment and to develop implementation strategies that provide multiple benefits.

B. The PEIS is unclear as to how the filter approach applies to other REMB activities, including cabin leasing and recreational licensing.

Under DNRC's current organizational framework, REMB has responsibility for managing "residential, commercial, industrial and conservation uses on school trust lands and secondary uses for lands classified as timber, agriculture and grazing uses." PEIS, p. E-3. Though the PEIS was developed in order to "identify a systematic process for proposing and evaluating proposals on school trust lands" (PEIS, p. E-5) and describes the two basic management tools at its disposal – land use authorizations (leases, licenses, and easements) and land transactions (land banking, land exchanges and land sales) – it is unclear from the PEIS how these management tools will be applied in REMB transactions to ensure that management decisions are in the best interest of the trust.

In particular, it is unclear how the agency's funnel filter approach will relate to the kinds of "special uses" already in practice, e.g. cabin site leases or recreational licenses. For example, if the agency receives a request for a cabin lease, designated as a "residential use" (PEIS, Sec. 2.3.1.5, p. 2-9), will the request be considered a project? If so, will the request run through the funnel filter process to determine whether the lease is renewed? What criteria will the agency use to determine whether lease or sale is most appropriate? It is similarly unclear how the PEIS will guide the agency in deciding whether to grant a license or other temporary use.

C. Apply an enhanced "physical environment" filter in order to identify a more realistic set of potentially developable lands.

As currently proposed in the Draft PEIS, the first stage in the filter mechanism is a “physical environment” filter that removes from consideration for development lands above an identified slope (25%) and lands located within the designated 100-year floodplain. PEIS, Sec. 2.3.1.7, p. 2-18. On its face, this appears to be a reasonable approach to identify lands that are clearly unsuitable for development based on slope and floodplain criteria, although we would strongly suggest that the department utilize more a more accurate digital elevation model (DEM) to identify lands with unfavorable slope characteristics. In the Draft PEIS, DNRC indicates that it initially relied on a 30-meter resolution DEM from the Montana State Library, which was resampled at a 90-meter resolution. Appendix C, GIS Data Report, p. 4. We suggest that even the original 30 meter resolution level is inadequate to accurately identify lands that are unsuitable for development.

We suggest that the physical environment filter could be substantially improved by including GIS layers that identify additional “disqualifying” criteria for development suitability. Although slopes and 100-year floodplains clearly represent the most commonly accepted “limits” on development suitability in a physical sense, there are a wider set of potential criteria that could operate to exclude lands from consideration for development. These include limitations such as regulatory constraints, practical constraints, economic constraints, or anticipated political or legal controversy that will render development unnecessarily costly, controversial, or difficult. Given the enormous size of the overall trust portfolio – 5.1 million acres – there are likely to be many, many parcels that have high suitability for development that are not subject to these constraints, and probably far more than could ever be made available for disposition given market considerations and limited REMB budgets and staff resources. Given the wide range of options and the limited staffing and resources available to the department, it is difficult to understand why the trust would seek to position itself to develop a particular parcel of land over the short term if that development is likely to be subject to legal challenges, significant regulatory or practical constraints, or economic limitations. While in some instances, market conditions and locational attributes will make such conflicts unavoidable, in most instances a filter that takes this information into account will do a better job of focusing REMB activities on lands that will yield the highest return per unit of staff and budget investment.

Some examples of additional criteria might be: areas with extremely limited water availability, threatened watershed areas, areas of significant wetlands and riparian zones, fire hazard areas, threatened or endangered species habitat, critical wildlife corridors, important viewsheds, or lands with special cultural or archaeological significance. We would note that most of the data and resources necessary to conduct this sort of analysis are widely available; in fact, some of this data was included in the model that DNRC utilized to rank school trust lands by locational attributes. (PEIS Appendix C, Table 1). Again, although none of these criteria necessarily would prevent the development of a particular parcel, each of these criteria render the development of a parcel significantly more costly, less practical, more controversial, or more likely to be subject to legal or political challenge, and will therefore require proportionally greater levels of staff resources to accomplish. By removing these lands from consideration for development at the outset

where they are associated with these features (or where they have some undesirable combination of them), trust managers can ensure that development projects will be prioritized on those portions of the trust portfolio in which development will be easier to accomplish, and that development proposals will be less likely to generate the conflict and uncertainty that may lead to lower returns to the trust at the end of the day. Of course, nothing constrains DNRC, as a trustee, from at least considering a development proposal on any trust lands. However, the application of these criteria would provide a tool to optimize trust management decisions and to discourage proposals that are likely to be a waste of time.

We would also note that the application of an enhanced version of the physical environment filter could pre-identify, and even prioritize, a potential land base for the application of conservation-oriented management tools such as natural resource area designations, conservation easement sales, sales of development rights, leases, mitigation agreements to free up development potential on lands affected by endangered species, and so forth. See e.g., PEIS Sec. 3.2.6.2, Habitat Conservation Plan. This would provide a more accurate method of identifying conservation “priority” opportunities than the 1 mile, ½ mile, and immediate adjacency criteria (identifying lands based on proximity to existing conservation lands) that are proposed in Alternatives C, B, and A for REMB identification of priority conservation opportunities. Exclusion of less suitable areas from consideration for development may also benefit the value of other trust lands or at least limit direct and indirect costs of trust land management. For example, the exclusion of important viewsheds from immediate development consideration may enhance or preserve the value of other lands that benefit from that viewshed; similarly, by identifying hazard lands, particularly those prone to fire, the state would be in a position to proactively steer development away from areas most likely to require expensive firefighting efforts that may impact DNRC budgetary capacity.

D. Apply an enhanced “locational attributes” analysis to identify lands that are most suitable for development based on improved quantitative analysis and additional qualitative criteria.

The second stage of the filter proposed in the Draft PEIS is the “Transitional Filter,” which ranks various state trust land parcels based on the “locational attributes” associated with those parcels that are commonly correlated with development suitability. PEIS Sec. 2.3.1.7, pp. 2-18 to 2-20. To provide this filter, Geodata Services, Inc. measured the proximity of each state trust land parcel to transportation infrastructure, existing development, and natural amenities was measured. Factors related to growth in housing, road density, and topography in neighborhoods surrounding each trust land parcel were also measured. These factors were utilized to categorize trust land parcels into high, medium, and low development suitability classes (1, 2, or 3), with the values averaged to determine the final class assigned to each trust land parcel. PEIS Appendix C.

While the current locational attribute model tracks where growth is occurring and identifies the common physical qualities shared by growth areas, we would note that it

fails to assign any qualitative evaluation of the desirability of growth in the areas where it is currently occurring; in other words, it adopts an entirely “passive” approach to the identification of state lands that may be appropriate for development. This design suggests that the state will not be considering the relative quality and/or desirability of the development of a given parcel of state trust lands, and that the development of state lands would occur outside the context of local planning for growth in the communities in which the lands are located.

As the manager of the largest portfolio of lands in the state, and as a state agency that is charged with the management of a perpetual trust, we suggest that DNRC should take a strong interest in the desirability of particular kinds of development, the timing of development on state trust lands, and the impacts of development on local communities, the state, and the public at large. This interest could dictate a more proactive approach which would identify trust land parcels on which development is desirable from the point of view of a number of factors, including potential economic returns to the trust, impacts on local communities, and impacts on the environment. We suggest that with some refinements, the GIS model that DNRC used in the Draft PEIS is in fact capable of a more prescriptive analysis of the “desirable” locational attributes of trust land parcels.

To review the locational attributes filter, the SI/LILP joint venture enlisted the assistance of Patricia Hernandez, who was involved with the development of the GIS model that was utilized by Geodata Services, Inc. in the Draft PEIS (Appendix C). As noted below, Ms. Hernandez identified several strengths associated with the approach proposed by DNRC, including the compilation of high quality datasets. However, Ms. Hernandez suggested that both the representation of growth related factors derived from these datasets and the model used to rate development potential should be improved. Most importantly, Ms. Hernandez pointed out that the model utilized by DNRC attempts to identify those state trust lands most likely to be developed, but stops short of further identifying the parcels most suitable for development. Ms. Hernandez suggested that further research would be needed to identify a subset of developable state trust lands where negative impacts to air and water quality, wildlife populations, local economies, and communities will be minimal. Ms. Hernandez’s comments are reflected in subsections (1) and (2) of this section below.

1) Suggestions for Assessing Development Potential

a. Representation of Drivers of Growth

To accurately predict development potential, DNRC’s model must accurately represent drivers of growth. In the model presented in the Draft PEIS, “Euclidian” or straight line distances are used to represent the proximity of state trust land parcels to growth related factors, such as commercial centers and hospitals. Draft PEIS Appendix C, pp. 12-20. A better measure of accessibility to services is travel time, which accounts for the location and quality of transportation corridors. We therefore suggest that proximity measures be recalculated and represented as travel time rather than straight line

distance. An example of the model results when employing travel time proximity measures versus Euclidean distances is presented in Figure 1 below.

Characteristics of the neighborhood surrounding a parcel will also affect its potential for development. In the current model, “Thiessen”, non-overlapping, irregularly shaped polygons were used to delineate neighborhoods around each state trust land parcel (see Figure 2). In reality, however, zones of influence around parcels overlap. For example, two adjacent parcels may be influenced by characteristics associated with their shared neighborhood. We therefore suggest that “Thiessen” neighborhoods be replaced with travel time zones (for example, areas within a 30 minute drive of each parcel). An example of the model results when employing travel zones versus “Thiessen” neighborhoods is presented in Figure 2. Within neighborhoods, calculations should be independent of area. For example, surrounding housing density should be measured rather than the number of households.

Lastly, drivers of growth should be represented as continuous variables rather than categorized into high, medium, and low classes. Categorization results in a loss of information that may be useful for describing differences in development potential between parcels.

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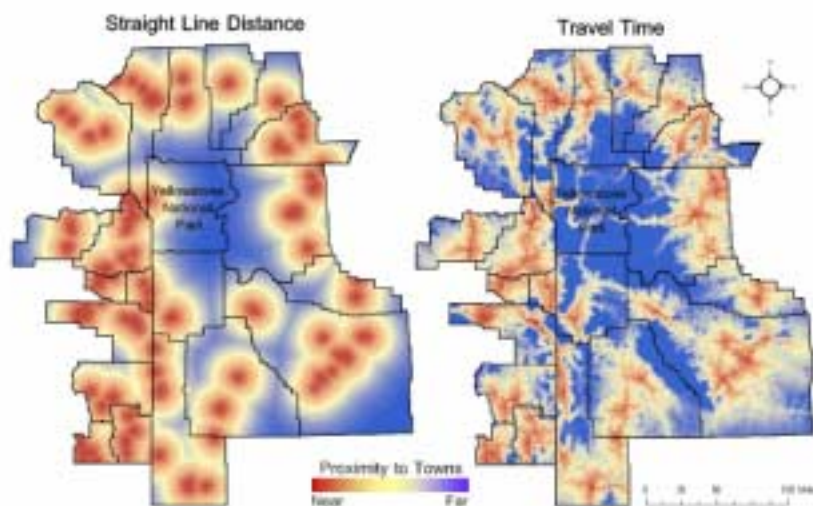


Figure 1. Model results provided by Ms. Hernandez. Straight line distances were used to represent proximity of state trust land parcels to growth related factors. Travel time is likely a more appropriate measure of accessibility, particularly in mountainous regions. A comparison of straight line versus travel time is provided for the 20 counties surrounding Yellowstone National Park.

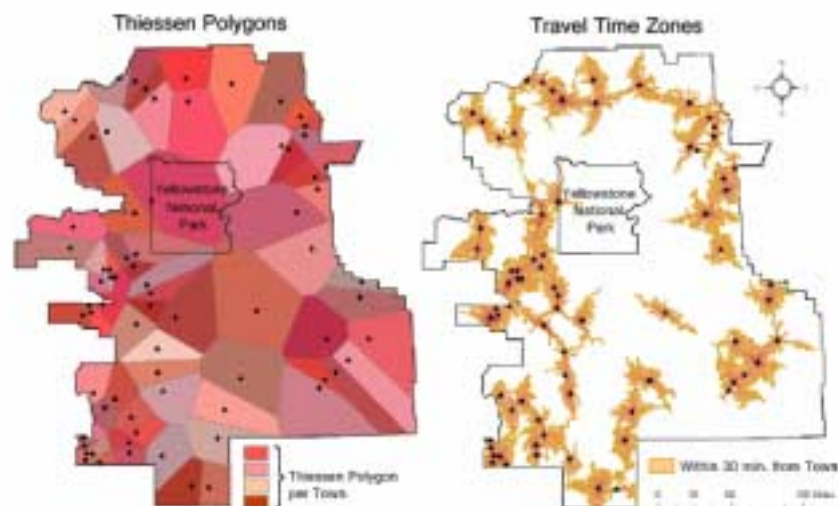


Figure 2. Model results provided by Ms. Hernandez. Thiessen polygons were used to represent neighborhoods around state trust land parcels. Travel time zones may better represent neighborhoods. A comparison of Thiessen polygons versus 30 minute travel time zones around towns is provided for the 20 counties surrounding Yellowstone.

b. Model Used to Rate Development Potential

A strong point of the current approach is that the findings from previous studies were used to guide data collection of the factors most related to growth. However, a quantitative analysis is needed to identify the drivers of growth relevant in different parts of Montana. For example, the factors influencing growth in eastern and western Montana are likely to be different. A quantitative analysis is needed to identify the combination of factors that most accurately describe growth patterns per region (i.e., east versus west).

The additive model used in the current study to rate development potential weights drivers of growth equally. This approach may result in a misidentification of the most developable parcels. In reality, some of the drivers of growth are more influential than others. For example, a study of rural housing trends in the Greater Yellowstone Area found that access to airports was less influential than access to other services, including business centers, hospitals, and schools. In addition, drivers of growth interact. Access to schools may be more important to people who live near towns than to retirees and second home owners who live at the wildland interface. In order to rate development potential, the strength and nature of these relationships should be quantified empirically.

We suggest that a random sample of private land parcels should be used to calibrate the model of development potential. These should be selected from the Montana Department of Revenue Computer Assisted Mass Appraisal System (CAMA). For these parcels, recent (i.e., 1990s) growth in housing, commercial and industrial developments should be quantified. One quarter of these parcels should be used for assessing model accuracy. For the remaining parcels, statistical techniques (generalized linear models) should be used to quantify the strength and nature of the relationships between drivers of growth and the resulting development patterns. A best overall model should be identified and used to rate the development potential of the excluded private land parcels. This will convey to DNRC staff the level of confidence that should be held in the final rating of state trust land parcels.

2) Suggestions for Incorporating Growth Management Principles

The recommended changes in the previous section will result in a more accurate portrayal of which state trust lands are most developable. However, only a subset of these lands are in fact the most suitable for development; as discussed in Section III(C) of our comments, given the enormous size of the available trust portfolio, it is difficult to understand why the trust should not focus its efforts on those parcels that are the most suitable for development. We therefore recommend that growth management principles be incorporated into this study to minimize the environmental and economic costs to local governments and communities.

a. Overview of Potential Development Impacts

Land uses are known to impact ecological processes through the introduction of new species, alteration of biotic interactions, changes in habitat extent and juxtaposition,

changes to disturbance regimes, biomass changes, and effects on air and water quality, light quality, and noise pollution. In addition to local ecological effects, development may alter ecological processes on adjacent and even distant public lands

Ecological and socio-economic impacts are often closely related. On-site septic systems can overflow, leading to water quality problems. Long commute distances can result in more gasoline burned, increasing air pollution. The economic consequences of development are related largely to the costs of community services. Sprawling development can increase demands for new schools, fire stations, roads, sewer, water and utility lines. Sprawling development is often a net drain on local government budgets, by increasing costs of services beyond the new revenues that are generated in property taxes

b. Assigning a Growth Management Rating

To account for these potential costs, we suggest that all state trust land parcels be assigned a growth management rating, depicting the extent to which each parcel conforms to growth management principles. The most suitable parcels for development will be those with a high potential for growth and a high growth management rating. This step would allow DNRC staff to maximize profit while minimizing negative environmental and socio-economic impacts. The application of growth management rating seems especially important in a PEIS intended to avoid, minimize or mitigate environmental impact.

The growth management rating should account for adjacency to existing development and the protection of natural amenities and resources. Concentrated development patterns are also frequently preferable since isolated developments encourage further subdivision and have large impacts on the environment and cost of community services. A high growth management rating could therefore be assigned to state trust lands that:

- are proximate to towns;
- occur in neighborhoods that already support high housing densities;
- are distant from public nature reserves and conservation easements;
- are distant from riparian areas and other rare or declining habitats;
- do not overlap with critical wildlife habitat; and
- comprise small isolated parcels rather than large contiguous blocks that are more suitable for wildlife habitat and natural resource extraction.

E. Apply an enhanced marketing filter to ensure that the universe of lands considered for development bears a reasonable relationship to the trust's potential "share" of development

The third step in the Draft PEIS's proposed filter process is a "market filter," which attempts to assess the economic/demographic suitability of lands in each land office for development by estimating the demand for trust lands over the next twenty years. PEIS Sec. 2.3.1.7, p. 2-20. The "market filter" is based primarily on two studies provided in Appendices B and D to the Draft PEIS: a May 2004 economic study provided by Dr. Paul Polzin (PEIS Appendix B), and an April 2004 land use forecast, financial

returns, and economic impact study provided by David H. Jackson (PEIS Appendix D). Using data from the Polzin economic study, the Jackson study projected expected growth in residential, commercial and industrial acreage in each land office region. These growth estimates were then used to derive acreage ranges for potential growth on trust lands based on the ratio of trust land ownership to private land ownership in each region.

We agree that the “filter” process should incorporate an analysis of projected market demand for trust land in order to quantify and identify lands that are suitable for development. However, the “market filter” that is proposed to be applied in the Draft PEIS rests centrally on the assumption that the trust should capture its “fair share” of growth in each land office region. As discussed in Section II, it is not at all clear that the capture of a “fair share” of growth in each land office region would in fact be consistent with the best interests of the trust; it might therefore be advisable for DNRC to revisit this assumption in the development of the “market filter” such that the filter incorporates not only potential market demand but also DNRC’s objectives as a trust manager in disposing of trust lands for development.

In addition, the “market filter” developed by the Polzin and Jackson studies is quite simplistic, predicting market share on a land-office-wide basis using projected incomes, population, and a loose calculation based on proportional ownership of land and past development patterns. While this may provide a rough estimate, we would suggest that given the limited resources of the department that can be applied to real estate project development statewide – and the very significant revenue implications associated with the selection of optimal real estate developments for the trust as a whole – a far more accurate characterization of market demand for trust lands is an essential component of a program that will focus the REMB on disposition opportunities that maximize returns to the trust. Therefore, if the state is serious about pursuing revenue opportunities from commercial and residential development, it should rely on a much more sophisticated, focused analysis of real estate sales data and absorption rates, particularly in those areas deemed highly suitable for development. This is a missing element of the Whitefish project that the joint venture may be able to provide to assist that planning effort, and might also serve to guide the final PEIS. We are currently exploring the development of a study to assess market conditions in the relevant market area for the Whitefish lands, along with market absorption rates for various types of development. This study may also enable development of analytical tools that could be applied statewide.

Regardless, our review suggests that there are also several significant flaws in the Polzin and Jackson studies that tend to challenge the predictive value of these studies in anticipating demand for trust lands even at a gross level.

1) Key economic trends in Montana’s economy are overlooked.

Although the data presented in the Polzin study seem to provide a reasonable overall picture of the general trends in Montana’s economy at the land office level and are generally accurate,⁶ the Polzin study is essentially descriptive in nature; i.e., there is

⁶ Some of Polzin’s data is now out of date. Polzin uses the 2000 data from Department of Commerce’s REIS database; however, the 2002 data has been released.

no attempt to analyze the trends identified in the data, and, more importantly, there is no attempt to relate these trends to Montana's land markets and corresponding real estate values. This analysis would seem to be germane in the context of the Draft PEIS, particularly given that the study is ultimately used in the Jackson study to derive the growth in developed land acreage estimates that are presented in Appendix D. We would note that area MLS databases and Clark Wheeler's database could provide extensive information on land sales and values by region, size and use.

Regardless, several of Polzin's selected indicators also appear to require further justification and/or analysis. For example, Polzin uses per capita income, and not earnings per job, to characterize how the "average resident" is faring. We note that Polzin's data suggests that per capita income in the state is rising while average earnings per job are falling. The difference between the two is most likely non-labor income, which may not be that well distributed across the population. Non-labor income generally consists of two components: money earned from investments and transfer payments to individuals, the latter being primarily retirement income. Data available to SI suggests that in Montana, 39% of all personal income in 2000 was non-labor income, and that taken as a whole, non-labor income has comprised approximately 56% of all new income in the state since 1970.⁷ As a result, the failure of the study to analyze non-labor income represents a significant oversight; at the same time, the substantial influence of non-labor income on per capita income suggests that average earnings per job would be a better indicator of how the average working individual is faring and should be taken into consideration.

Polzin also appears to distort the notion of "basic" industries, i.e., the idea that some industries are export oriented and bring new dollars into an area and are therefore more valuable than "non-basic" industries (which only circulate dollars within an area). Polzin provides an examination for only his list of 7 "basic" industries. We suggest that all industries have the potential to be basic and non-basic and, in practice, are a mix. For example, mining is classically basic because it generally exports minerals out of state, but gravel pits, also classified as mining, are usually considered non-basic as they generally cater to local markets. By reducing all industry analysis to the 7 "basic" industries, Polzin's study fails to address or analyze the largest and fastest growing industry in Montana – services – because services apparently do not qualify as "basic" industries. This characterization results in a significant distortion of the state's economy; in 2000, for example, services accounted for approximately 18% of all personal income in the state, and has comprised 28% of all new income generated in Montana from 1970.⁸

The limitations in the Polzin study are inherited by the Jackson study's predictions of future growth in commercial, industrial and residential uses in each land office region, since the Jackson study assumes that growth is a function of income and population. We would suggest that demand for land may be related not only to per capita income levels, but also whether that income is derived from labor or non-labor sources. Because the income estimates derived from the Polzin study do not differentiate between

⁷ Data derived from Economic Profile System (EPS) database, available at <http://www.sonoran.org/eps>

⁸ Data derived from EPS database, note 6, *supra*.

these types of income, Jackson's overall market analysis may be skewed as a result. Both studies could be significantly improved by addressing these issues.

2) Past development patterns are not necessarily predictive and should not necessarily be used to guide future growth.

A key assumption of the Jackson study is that future development patterns will correspond to past development patterns. Based on this assumption, the model extrapolates predicted future growth and market demand by determining what amount of developed land area is in commercial, industrial, or residential use in each land office region and multiplying this information with population growth projections to arrive at an estimate for predicted growth in developed land area for each use category.

One particularly troubling assumption in this model is that the minimum "resolution" for residential development was development at densities of between 1 house to 1 acre and 1 house to 25 acres; i.e., the model could not predict residential development at development densities higher than 1 to 1 or lower than 1 to 25. PEIS Appendix D, p. 7. The model appears to have compensated for this limitation by simply discarding densities that fall outside this range; as such, all residential development on trust lands is presumed to occur at a density of between 1 to 1 or 1 to 25 acres. Although there appears to be a substantial market at the current time for residential development at this density, it is not the only density level at which residential development is occurring. We would note that Clark Wheeler is currently tracking development at densities in the 100-640 acre range where there is also a great deal of activity; at the same time, development in urban and near-urban areas tends to occur at densities higher than 1 to 1 acre.

More importantly, however, there is no reason to necessarily assume that this is in fact the most desirable form of development either for purposes of maximizing economic returns to the trust or in terms of its benefits and costs to local communities and the environment. As previously noted in section III(B) of our comments, we would suggest that DNRC should take a substantial interest in the quality of development on state lands and the impacts of that development on local communities. Many studies have suggested that this level of residential development is one of the least desirable from the point of view of infrastructure costs to local communities, land consumption, and environmental impacts. By defining residential development at the undesirable levels assumed in the PEIS, DNRC is overlooking alternative disposition strategies – such as "cluster" developments, the utilization of more advanced land use planning tools, and tools such as density transfers, conservation easements, and the like – which could potentially improve the quality of development, improve economic returns from land development, and minimize environmental impacts associated with that development.

3) The Trust cannot necessarily attain a proportionate share of growth in each region.

A primary assumption made by DNRC in the Draft PEIS is that the trust is "entitled" to capture a proportionate "share" of the growth that is anticipated to occur in each land office region. PEIS Sec. 2.3.1.4, p. 2-8 to 2-9. To quantify the trust's potential

“share” of future development, the Jackson study multiplied the estimates for anticipated growth in commercial, industrial, and residential development acreage in each region by the ratio of trust land acreage to private land acreage in that region to arrive at an estimate of growth that could occur on trust lands. PEIS Table 2-3, p. 2-9.

As noted elsewhere below, it is not clear that capturing a proportionate share of growth in each region would be in the best interests of the trust. Nonetheless, the methodology utilized by the Jackson study does not seem to provide a particularly reliable method of predicting the trust’s potential share of future growth. As a general matter (and as DNRC’s own locational attributes model itself suggests), growth tends to occur in areas near existing development and infrastructure; in addition, growth is not uniformly distributed within each region, but is instead concentrated in smaller, high-growth areas. As noted in the Polzin study, growth is also not equally distributed between land regions; at least one region is in fact experiencing negative growth over all. See PEIS Appendix B, Eastern Land Office. Nor are state trust lands and private lands equally “available” for development in every circumstance; many lands will have physical characteristics that do not lend themselves to development or will be subject to other practical limitations. For example, the procedural requirements associated with the disposal of state trust lands may make these lands impractical to develop (such as limitations on joint venture arrangements, right-of-way grants, infrastructure development, financing arrangements, and public auction requirements); alternatively, many private lands may be held in large blocks by owners who do not intend to develop those lands, or who have restricted the types of development that can occur on those lands. By assuming that the trust will capture a proportionate share of growth in each region, DNRC is assuming that trust lands will be always equally well positioned for development as compared to private lands; it is also assuming that all private lands in the region are in fact available for development.

The uneven distribution of state trust lands and private lands, the proximity of these lands to existing growth, and the varying characteristics associated with these lands should logically lead to the result that in some areas, a higher proportion of the lands that are close to existing infrastructure and that are available for development might be trust lands, in which case the trust might expect that its lands could bear a proportionately larger share of growth than the ratio of state trust to private lands in the region as a whole. In other areas, the majority of lands that meet these characteristics may be private lands, in which case the trust cannot expect a proportionate share of growth.

By developing the growth projections for the Draft PEIS in a manner that fails to differentiate between high and low growth areas in the land office regions, between the relative positioning of trust lands with regard to development, and between the various development characteristics that will influence the suitability of those lands for development, these growth projections are likely to be highly inaccurate. At the same time, by developing disposition alternatives on the basis of these projections, DNRC would seem to be increasing the risk that development on state trust lands will be focused in areas where development should not occur and where it will fail to maximize returns especially as a function of unit cost of investment (i.e. staff and budget).

4) Capturing a proportionate share of growth may not be in the best interests of the trust.

DNRC takes as a central premise that the trust should in fact be attempting to capture its “fair share” of anticipated growth in commercial, industrial and residential development in each land office area, as each of the alternatives other than the Alternative A “no-action” alternative are built on the capture of a proportionate share, by land office region, of anticipated growth in these land uses. PEIS Sec. 2.3.1.4, p. 2-6. As noted elsewhere above, this appears to imply that commercial, industrial and/or residential development of trust lands is the highest and best use of trust land unless the proposed filter process demonstrates otherwise.

We suggest that these assumptions are overly broad and need to be evaluated more closely to determine if development for commercial, industrial and/or residential use on a “fair share” basis is in fact in the best interests of the trust. Although commercial, industrial and/or residential development may produce higher returns to the trust over the short term, it is not clear that this will always be the case over the long term, particularly where irretrievable commitments of trust assets are involved (such as disposition of fee title for residential uses). The timing of dispositions for these purposes would also presumably have important implications for the return to the trust over the long term, as a deferred sale of land for residential use may yield higher returns if the land can be later entitled at higher densities or after additional appreciation has occurred.

With this in mind, it may not be in the best interests of the trust to irretrievably commit trust resources to commercial, industrial, or residential uses at the same rate as private lands in the same area. Without further analysis, we suggest that there is substantial risk that this strategy will lead to the disposal of trust lands at times when the returns from those disposals will be sub-optimal, particularly given that the REMB as a whole has limited real estate development expertise and tends to rely on outside proponents to identify development opportunities.

Revisiting the assumptions made with regard to the capture of a “fair share” in each land office area seems particularly important given the limited resources available to the TLMD to bring land out for development. As noted elsewhere above, even under the most “aggressive” strategy identified in the PEIS, DNRC estimates that it will dispose of only one half of one percent of the overall trust portfolio for commercial, industrial and residential use over the next twenty years. Given these constraints, the TLMD would seem to be well served to expend its limited resources on the disposal of lands for which the potential for returns to the trust are at their highest. In light of the highly differential value of trust lands between land offices, obtaining a proportionate share of growth in each land office does not seem likely to yield the highest returns for the trust.

F. Develop “guiding principles” to project-level filters to mitigate growth impacts on communities, improve the quality of development, and emphasize collaborative approaches to land use planning and project development.

As noted elsewhere above, we suggest that the first three stages of the funnel filter should be applied proactively to identify a meaningful subset of trust lands on which

REMB will focus its resources as a real estate manager. Using this subset of lands, we suggest that REMB should then work to identify, evaluate, and develop project opportunities using the remaining “filters” proposed in the Draft PEIS. As noted in the Draft PEIS, the remaining filters are essentially more project-specific, applying a “physical suitability filter” that evaluates the proximity and availability of infrastructure to specific trust land parcels on a project-specific basis; a “regulatory filter” that evaluates the effect of state, federal and local land use and environmental regulations on trust land parcels on a project-specific basis; a “selection filter” that prioritizes identified project opportunities based on real estate analyses, fiscal and staffing considerations, analysis of costs versus returns, perceived market demands, and project timelines; and finally, a “project filter” in which projects would be subject to local government review and approval (such as zoning, mitigation requirements, design standards, and so forth). PEIS Sec. 2.3.1.7, p. 2-20 to 2-23.

While the remaining “filters” proposed in the Draft PEIS clearly provide the steps necessary to identify, evaluate, and develop specific projects on trust lands, DNRC does not seem to identify any overall philosophy that REMB will utilize when applying the remaining filters. The lack of any guiding principles for the application of these filters is a significant limitation of the filter approach as proposed in the Draft PEIS, as it (1) fails to provide significant guidance as to how projects will be selected and prioritized within the filter results, and (2) fails to provide any criteria for REMB projects as a whole by which the outcome of a given project (and the success or failure of filter analyses as an accurate assessment of opportunities) can be evaluated.

We suggest that DNRC’s filter approach could be significantly strengthened by developing a set of “guiding principles” for project development on trust lands that could be applied at appropriate stages of project identification, evaluation, selection, and development. These principles could address both desired trust outcomes as well as desired outcomes for the economic and environmental impacts of trust land development on both a local and state wide basis. By identifying a set of guiding principles, DNRC could enhance both its evaluations of project opportunities as well as the administrative record in support of the development or non-development of a given parcel of trust lands.

For example, trust land development activities will inevitably impose public costs in the form of public infrastructure and services needs, even as they will potentially generate new revenues by expanding the local tax base; however, the accounting and recovery of these costs may not be adequately addressed by local subdivision regulations in many Montana communities. With this in mind, DNRC might thus adopt as a “guiding principle” that anticipated tax revenues from new development on trust lands should be sufficient to pay for the costs of the public infrastructure and services that are required to support that development. In accordance with this principle, as a part of applying the proposed “physical suitability filter” that evaluates the proximity and availability of infrastructure for a given trust land parcel, DNRC could regularly conduct an assessment of the potential fiscal impacts of a proposed development on local communities.

Similarly, DNRC might adopt a principle that REMB will work proactively with local governments to develop land use plans for trust lands that meet trust objectives while satisfying local needs. As such, when working through the “regulation filter” and

“project filters” that incorporate consideration for local land use and environmental regulations, REMB would actively participate in the development of local plans that affect trust lands that have been identified as having a high potential for development. By engaging actively in land use planning processes across the state, REMB might be in a better position to proactively secure entitlements for trust lands that meet the needs of the trust and the local community, enhancing the future value of those lands for development while ensuring that developments on trust lands meet community needs and expectations and will face a minimum of conflicts over land use (conflicts that might well occur if trust lands are left behind in planning processes and are treated as de facto “open space”). Increased certainty, coupled with entitlements, should also enhance the attractiveness of trust parcels in an auction environment.

DNRC could also utilize these principles to ensure that REMB projects meet the various objectives of DNRC’s mission. For example, DNRC’s mission includes (in addition to the generation of revenues for the trust beneficiaries) consideration for the environmental impacts of trust management activities. DNRC might therefore adopt a principle that any development on trust lands will analyze these impacts and will be designed to avoid, minimize, or mitigate adverse and/or cumulative impacts on water quality, wildlife corridors and wildlife habitat, aesthetics, and so forth. This assessment would assist DNRC in meeting the requirements of its mission, improving the quality of developments on trust lands, and minimizing potential opposition from conservation interests and other interested parties to a development project.

IV. The Draft PEIS Does Not Adequately Evaluate the Potential Economic Impacts and Environmental Impacts Associated with the Alternatives

A. Returns to the trust fund under the various alternatives are not accurately characterized.

The estimated returns to the trust fund under the various alternatives that are presented in the Draft PEIS are also largely based on the Jackson study. The Jackson study attempts to estimate the “rate of return on equity” for Alternatives A, B and C based on the projected growth in commercial, industrial, and residential land use categories and the trust’s anticipated share of that growth under the various alternatives; it also provides calculations of rate of return for Alternatives B and C with and without the proposed \$500,000 and \$1,000,000 budget increases for up-front development costs. PEIS Appendix C, pp. 12-16; PEIS Sec. 2.9, pp. 2-54 to 2-55.

As noted in Section III(E) of our comments, there are several significant issues associated with the Polzin and Jackson economic studies that call into question the accuracy of the growth projections for the various land use categories; in addition, we have questioned the assumptions made by DNRC with regard to the desirability of the trust’s full participation in the growth in these categories. Depending on the results of a revised economic study and DNRC’s judgments regarding the appropriate level of trust participation, the current revenue projections could vary widely from the current estimates. We therefore suggest that the revenue projections for the various alternatives should be revisited based on improved growth estimates and revised assumptions regarding the trust’s potential “share” of this growth.

With this in mind, however, we also had some difficulty understanding the rationale behind the method for calculating rates of return that is described in the study:

Equity is estimated by calculating the market value of the land developed over the planning horizon. Since this value reflects price changes as well as changes in yearly quantities, it was calculated by averaging the values in the first and second half of the planning horizon. Gross income is estimated by calculating the total gross income from the mix of leases and land sales over the planning period and then converting it to an average annual amount.

PEIS Appendix D, p. 13. As we understand this statement, the “equity” against which REMB’s rate of return is measured is thus simply the universe of lands that will be developed by REMB within the planning horizon, which is in turn defined by the philosophy of land disposition defined in the chosen alternative – aggressive disposition, active disposition, and near-status-quo disposition. Income from this “equity” value is then simply defined as the average value derived from selling this universe of lands over the same planning horizon; costs to generate this income are simply the current land department budget plus the projected increases in budget required to implement the alternatives.

It appears that these assumptions have resulted in a scenario in which the estimated rate of return appears to increase as a function of the amount of land included in the universe of lands to be developed over the planning horizon, independent of any other variables. The rate of return obviously fluctuates as a result of the land department’s investment in new infrastructure, which increases the value of the land when it is sold relative to the raw land value (which the Jackson study establishes as 1/3 of the developed value). This accounts for the differences in the rate of return between alternatives B-1 and B-2 and C-1 and C-2.⁹ However, the variations in the rate of return between alternatives A, B-1, and C-1 seem to be primarily related to the fact that for a disproportionately small increase in overall budget, the land department could double the amount of land sold. Because the “equity” and “income” values are based on average values and vary from alternative to alternative in direct relationship to the amount of land sold, the primary difference between the alternatives is thus the relationship between the land department budget and the revenues generated. As such, the model would seem to suggest that the more land that is sold, the higher the overall “rate of return.”

If we have understood the model correctly, a central problem with this model is that it is essentially designed to measure the wrong thing. Because the land department is largely funded from legislative appropriations, the budget of the land department bears no meaningful relationship to the “rate of return” being earned by the trust on its overall portfolio (even if budgetary considerations are a legitimate consideration when making

⁹ Note that Alternatives B-1 and B-2 and C-1 and C-2 in the Jackson study are actually variations on PEIS Alternatives B and C; the alternatives labeled as B-1 and C-1 in the body of the PEIS are not evaluated in the study. The different numbering conventions between the PEIS and Appendix D are somewhat confusing and should be clarified.

trust management decisions). The actual “rate of return” earned by the trust is related to the amount of revenue generated each year from the trust portfolio as compared to the value of the portfolio. However, by allowing the “equity” value to vary depending on the amount of land that is anticipated to be sold under the various alternatives, the Jackson study muddies the water with regard to evaluating the revenues generated from any fixed set of lands that are suitable for development, and instead focuses on the cost of producing those revenues – a measure which is essentially irrelevant for purposes of calculating the real “rate of return.” The problem with this approach is made clear by the fact that, assuming that the land department could always sell a proportionately larger amount of land than the budget increase required to complete the sale, the Jackson model would seem to predict that the highest “rate of return” (and thus the “best” investment strategy) would be achieved by selling the entire trust portfolio over a very short period.

The model used to calculate potential revenues from land sales is equally problematic, since it utilizes average values for lands in each land office that do not account for the substantial variations in land values that occur within each land office based on location and amenities. This approach completely overlooks the critical importance of these variations in land valuation in designing a disposition strategy that will maximize revenues; for example, if the trust disposed of only the highest-value parcels (presumably those located nearest to existing development and infrastructure and in the highest-value land markets), it would achieve much higher rates of return than if it sold parcels throughout each land office region without regard to the relative value of those parcels. Similarly, this approach ignores the substantial variations in land value appreciation rates, which also would be of critical importance to an investment and disposition strategy that maximizes revenues; by prioritizing the timing of trust land dispositions to take advantage of land value appreciation, the trust could presumably achieve much higher rates of return than if parcels are sold without regard to this information.

Similarly, although the economic analysis broadly projects the rates of return to the trust of more or less aggressive management “philosophies,” it does not provide any comparative analysis of the implications of different trust land disposition tools – for example, leases versus sales versus sales of development rights, taking the use of certain disposition strategies as a given rather than attempting to compare the economic results from different strategies. However, this distinction is extremely significant with regard to the amount of annual revenue that is generated by the trust. For example, lease revenues are “distributable,” which means that legislature can make those funds available directly to the beneficiaries through the budgeting process. On the other hand, revenues from the sale of land (other than lands sold under the land banking program) are placed in a permanent fund, the interest from which is made available to beneficiaries through the budgeting process. These differences in budgetary treatment could also affect disposition strategies, since one can easily imagine situations in which it might make objective economic sense to sell lands, but because of the difference between distributable lease revenue versus interest on the permanent fund, it might make more budgetary sense to retain them.

Other serious shortcomings associated with the predictions of projected “rates of return” include the fact that the Jackson study utilizes Montana Department of Revenue

data as the basis for the valuation of commercial, industrial, and residential land uses. PEIS Appendix D, pp. 2-7. In our experience, these data can diverge significantly from actual market prices for lands in these categories; we again note that MLS database information and Clark Wheeler's database information is available with permission and would likely provide a more accurate characterization of land valuation.

We suggest that a better method for calculating "rates of return" under the various alternatives would be to use the "funnel filter" process to identify a subset of lands that are considered highly suitable for development along with a reasonable estimate of the amount of land that the TLMD should seek to dispose of given the overall investment objectives of the TLMD. Valuation information for this subset of land could then be used to derive an overall "equity" value for the amount of land that the TLMD should dispose of over the planning horizon. "Rates of return" for alternatives could then be calculated against this overall "equity" value, but utilizing much more sophisticated projections that account for variations in land value and appreciation rates, utilize current market data, and provide better guidance for the development of disposition strategies.

B. Conservation of a portion of trust lands will not necessarily lead to reduced rates of return.

Another key assumption that appears to be used in evaluating the various alternatives proposed in the Draft PEIS is that the conservation of some proportion of the trust lands that are made available for residential development will lead to reduced rates of return to the trust. In two of the proposed alternatives, Alternative B-1 and Alternative C-1, DNRC proposes that it will attempt to conserve up to half of the trust lands that would otherwise be made available for residential development.

DNRC assumes that the only mechanism for accomplishing this goal is through the sale of conservation easements to outside parties, which DNRC identifies as generally producing only half the rate of return that would be associated with fee title sales. As an initial matter, we would note that Montana law currently prohibits the widespread sale of conservation easements, such that this tool may not in fact be available to accomplish DNRC's stated objectives. Regardless, however, there are a variety of other disposition mechanisms available that could be used to increase the rate of return from conservation dispositions. For example, "cluster" developments, which concentrate development that will occur on several different parcels in a small area while leaving the majority of each parcel in open space, can accomplish conservation of the vast majority of "developed" land while not necessarily decreasing the density (or the price) returned for the land.

At the same time, there may be cogent reasons to "conserve" a substantial portion of the lands that may be designated for conservation use under these alternatives regardless of whether the lands are actually disposed in conservation easements or other mechanisms; some of these lands may have long-term asset value for other uses that are not incompatible with conservation (such as sustainable timber harvest or grazing purposes), they may be needed for mitigation use to enable the development of the other portions of the state trust lands or to establish wildfire buffers to protect developments, or the protection of those lands may enhance the value of surrounding lands for development by protecting viewsheds or public recreation areas.

We therefore suggest that DNRC should consider opportunities to utilize alternative disposition strategies as a method for increasing returns for land that would be “conserved” as a result of the proposal, as well as accounting for other reasons or mechanisms that may lead to the “conservation” of those lands in any event. We suggest that if DNRC was to consider these types of uses or alternative disposition strategies in evaluating the potential “value” that could be obtained by the trust from the conservation lands, DNRC might be able to assume, if not demonstrate, substantially higher rates of return from the “conservation” portion of the lands considered in these alternatives.

C. The economic and environmental impacts associated with the various alternatives require further analysis.

The problems associated with the Jackson study’s projections of trust revenues are accompanied by similar issues associated with the study’s projections of economic impacts on local communities and tax revenues. For example, the study’s bare assumption that sale of lands for residential uses will necessarily increase taxes in a positive way ignores the extensive cost of services literature and any accounting of the costs of delivering infrastructure and providing ongoing services. PEIS Appendix D, p. 19. Similarly, because it erases any distinctions between different disposition strategies, including distinctions between land valuation, timing, and methods of disposition, the model does not account for the impacts that different disposition strategies may have on local communities.

However, a more significant issue in this regard may be related to another central assumption of both the PEIS and the Jackson study: that growth and environmental impacts will occur whether the state lands are available for development or not. PEIS Sec. 2.8, p. 2-52. Based on this assumption, DNRC concludes that its actions, particularly with regard to commercial and residential uses, will have little to no impact on the environment or the economies of local communities.

As an initial matter, it is not at all clear that the availability or non-availability of state trust lands has no effect on local land markets. As the largest single land owner in the state, basic economic principles would suggest that the availability or non-availability of DNRC lands for development could have a significant impact on land values. At the same time, the availability of land and associated land pricing may have a significant influence on local growth rates and the demand for development land.

A more significant potential impact of the development of school trust lands, however, is the vital economic and environmental role that these lands may be playing in communities and ecosystems across the state of Montana. DNRC is undoubtedly correct in concluding that, given that even the most aggressive disposition scenario would affect less than 1% of the overall trust holdings, the impact of this development is unlikely to produce significant statewide impacts. However, impacts to local areas could be extremely significant depending on how much development occurs, and, perhaps more importantly, where this development occurs.

Aside from the obvious ranching, mining and agricultural opportunities associated with trust lands, state trust lands that are currently undeveloped may be serving as open space or recreational assets in communities that are attracting growth; they may also have unique environmental values associated with them that do not occur on adjacent private or federal lands. These lands may also provide other important values, such as providing watershed services, protecting groundwater sources, providing wildlife habitat and movement corridors, or protecting viewsheds for existing developments. To the extent that state trust lands are serving in this role in a given area, the development of those lands could significantly impact environmental values, growth patterns, and even growth rates in those communities.

For example, the National Parks Conservation Association recently commissioned a study of the economic role that Glacier National Park plays in the Flathead Valley; in the report on the study, “Gateway to Glacier: the Emerging Economy of Flathead County,” Dr. Larry Swanson of the Center for the Rocky Mountain West compared the economy of the Flathead valley and with similarly situated communities nationwide.¹⁰ He found that in Flathead County, like other communities located near a national park or natural area, the quality of life and the spectacular natural environment are the major economic drivers. While the study does not quantify the dollar value of open spaces and the landscape, the correlation between a healthy economy and healthy environment is significant. Similarly, the Sonoran Institute recently released a study entitled “Prosperity in the 21st Century West: The Role of Protected Public Lands” in which economists Ray Rasker and Ben Alexander examined the relationship between public lands management in the west (national parks, national forests, wildlife refuges, monuments, conservation areas and Bureau of Land Management Lands) and the economic health of neighboring communities.¹¹ The study found that “protected natural places are vital economic assets for those local economies in the West that are prospering most” though the degree to which a community can benefit from land protection depends largely on additional economic factors such as access to an airport and workforce education level. Though school trust lands were not specifically included in the land base considered by either of these studies, we suggest that trust lands may be playing a similar role in some Montana communities. For that reason, the state should carefully evaluate, both as a landowner and governmental entity, the impact of development decisions.

More importantly, however, this assumption fails to account for the influence that the location and timing of certain types of development may have on growth patterns in a community as a whole. For example, it is well-documented that the development of commercial uses at the edge of existing communities may negatively affect the viability of commercial uses in traditional downtown areas and may affect economic growth in the community as a whole. Similarly, the development of isolated parcels of land for residential use may influence the development of other lands in the area by developing roads and other infrastructure that will trigger the sale and development of other lands in the same area even if this is undesirable, or may increase infrastructure costs to local communities that may limit other development opportunities.

¹⁰ Gateway to Glacier: the Emerging Economy of Flathead County, National Parks Conservation Association (2003).

¹¹ Rasker, note 4, *supra*.

The potential influence of development of state trust lands on both local environmental values and local economies – and in particular, the influence of the location, type, and timing of this development – only underlines the importance of the development of a set of “guiding principles” for trust land development as suggested in Section III(F) of our comments. By adopting these principles, DNRC could provide some assurance that the impacts of the development of state trust lands will in fact be as limited as is suggested by the Draft PEIS.

V. Conclusion

We suggest that, given the concerns identified with the various alternatives proposed in the Draft PEIS, and the need for further information and analysis to guide REMB’s proposed disposition process, the ongoing Whitefish planning effort may produce additional experience and analysis that would provide valuable insight and information for the statewide planning effort. The participants in the Whitefish planning effort are currently looking at ways to analyze critical issues such as access to infrastructure, the cost of services, the need, market for, and absorption rates associated with different types of real estate product based on local sales data, methods of phasing and prioritizing development, and disposition methods for both development and non-development uses, as well as looking at ways to develop conservation, long term resource management, and other revenue generating management options that benefit the local community and the trust.

With this in mind, we suggest that DNRC might be well served to delay preparation of a final PEIS until the results of these additional analyses are available. Regardless, given the opportunities for improving the planning process as provided herein, we recommend that the agency develop an additional alternative that does the following:

- Establishes a clear, measurable goal that accomplishes the agency’s mission and purpose.
- Develops a filter process that results in the identification of a limited set of lands that are highly suitable for development. This filter process would apply versions of the “physical environment,” “transitional,” and “market” filters that would be enhanced as we have previously described, and would therefore remove additional categories of land from consideration for development, identify lands with high development suitability based on somewhat more detailed locational attributes and additional growth management criteria, and employ a more sophisticated market analysis to arrive at a realistic picture of the trust’s potential and desired share of future growth.
- Enhances the proposed “project level” filters with a set of guiding principles for project development on trust lands that could be applied at appropriate stages of project identification, evaluation, selection, and development to ensure quality development on trust lands that will enhance both local communities and the trust. These principles would emphasize working proactively with local governments to

achieve solutions that benefit the trust while accounting for the needs and interests of local communities.

- Provides well-researched, thoughtful criteria for choosing among disposition strategies and developing disposition plans that prioritize the disposition of lands within defined planning time frames.
- Provides for a monitoring program with provisions for regular reporting and measured achievement that ensures the programmatic plan actions are in the best interest of the trust.

We greatly appreciate your consideration of these comments, and look forward to the opportunity to work with you further in the development of this critically important plan. If you have any questions or concerns, please do not hesitate to contact Diane Conradi at (406) 862-7885 or Peter Culp at (602) 393-4310.

Very truly yours,

Peter W. Culp
Project Manager/Attorney for Programs

Diane Conradi
Project Manager
State Trust Lands Program
Sonoran Institute

Cc: Andy Laurenzi, Program Director
Dennis Glick, Northern Rockies Program Director
Dr. Armando Carbonell, Lincoln Institute of Land Policy

TO: Trust Land Management Division of the Montana Department of Natural Resources and Conservation

FROM: Jody Sanford, Associate Planner
City of Bozeman, Department of Planning and Community Development

RE: Comments on the Draft Real Estate Management Programmatic Environmental Impact Statement

DATE: August 15, 2004

Thank you very much for the opportunity to comment on the June 21, 2004 draft of the Draft Real Estate Management Programmatic Environmental Impact Statement. My comments are provided on behalf of the Bozeman Department of Planning and Community Development. My comments are addressed towards specific sections of the document, and are presented in numeric order based on section number.

Thank you very much for the opportunity to comment on the June 21, 2004 draft of the Draft Real Estate Management Programmatic Environmental Impact Statement. My comments are provided on behalf of the Bozeman Department of Planning and Community Development. My comments are addressed towards specific sections of the document, and are presented in numeric order based on section number.

1. Section 2.3.1.4 - Relationship to Community Growth (Page 2-9)

We find the notion that Trust Lands would capture a direct proportion of shared local community growth (Alternative B) or capture a higher proportion of shared local community growth (Alternative C) to be flawed. To assume that because Trust Lands represent a certain percentage of lands within a land office that those lands could be expected to capture that same (or greater) percentage of regional growth and development is too simplistic. The single largest factor driving development potential is location. Most community growth occurs on the most developable land, with developability being determined by proximity to urban areas, availability of community infrastructure and services, proximity to amenities, etc. The Trust Lands are allocated in a manner where they are most often not in the best location to be attractive for development. We understand that the REMB could acquire land with better location through land swaps and/or land banking. However, this would result in less valuable lands being disposed of to

acquire more valuable lands which will in turn result in a decrease Trust Land holdings and a decrease in the land area of each land office represented by Trust Lands (the estimates shown in Tables 2-8, 2-9, 2-11, 2-12, 2-14 and 2-15 would have to be adjusted accordingly). This concept is presented throughout the document. If this concept of “capture of proportional growth” is advanced, you should employ a much more sophisticated model that considers locational influences and presents a more realistic estimate of how much community growth could be expected on Trust Lands.

2. Section 2.3.1.5 – Land Use Categories (Page 2-9)

Throughout this section, the phrases “and other uses normally recognized by local zoning regulations” or “zoning designations” are used. You should note that many Montana cities and towns, and most Montana counties, do not have zoning regulations. These phrases imply that zoning is in place in all Montana communities.

3. Section 2.3.1.5 – Land Use Categories (Page 2-10)

This page contains a discussion of Transfer of Development Rights (TDR). First, the text should clarify whether the TDR sending and receiving areas would both be within the same land office. Second, the use of TDRs is very administratively intensive. We wonder whether REMB would have the requisite staff time and expertise to successfully implement a TDR program. Also, the use of TDRs in Montana has been very limited and has been successful only in a few specialized applications. TDR programs usually require zoning to determine development rights. Because most Montana counties lack countywide zoning, it would be very difficult to determine transferable development rights. Listing TDRs as a land use tool always sounds great, but you should research the practicality and viability of this tool before including it in this document.

4. Section 2.3.1.5 – Land Use Categories (Page 2-11)

Under the description of “Commercial” you should note that commercial uses might include some residential uses if these residential uses are considered commercial by the DOR.

5. Section 2.3.1.5 – Land Use Categories (Page 2-12)

Under the description of “Industrial” the phrase “growth policy or zoning designation, or identified as High Suitability” in the PEIS” is included. However, this same phrase should also be included in the descriptions of “Residential” and “Commercial.”

6. Figure 2-4 – Funnel Filter Process (Page 2-17)

We find that the Funnel Filter Process as presented is too general and simplistic. This could be problematic because REMB will seemingly be relying heavily on the funnel filter process to evaluate the development potential of Trust Lands. We would prefer to see inclusion in the document of detailed lists of factors and

objective criteria that will be used to evaluate a piece of Trust Land against a particular filter. The use of objective criteria for each filter would make the process more predictable for the REMB, local communities and the public.

7. **Section 2.3.1.7 – Project Selection and Prioritization (Page 2-18)**
We find that the Physical Environmental Filter to be somewhat lacking. There are many other environmental factors that should be considered in addition to 100-year floodplain and slope. We would recommend that land occupied by wetlands not be considered for development. In addition, land in the urban-wildland interface should not be available for residential development due to wildfire risk. The DNRC spends a considerable amount of taxpayer money each year fighting wildfires on state lands. Introducing residential uses to state lands will only increase taxpayer costs associated with protecting structures from wildfire.
8. **Section 2.3.1.7 – Project Selection and Prioritization (Page 2-18)**
Table 2-6 lists “Land Acreage for Rural Residential Uses by Suitability Ranking” and contains some pretty large numbers in terms of acreage for each land office. We have to wonder whether “rural residential” development is appropriate anywhere in Montana. While selling or leasing Trust Lands for rural residential uses may be profitable for the State, it could spell financial disaster for local communities. Local communities are responsible for providing public services such as road maintenance and fire protection. Cost of services studies (including some Montana-specific studies) show that rural residential development produces significantly less in tax revenue than it costs to provide services to this type of development. This type of development is fundamentally unsustainable, fiscally and environmentally, and should be discouraged.
9. **Section 2.3.1.7 – Project Selection and Prioritization (Page 2-20)**
The description of the Physical Suitability Filter seems to pertain primarily to access to infrastructure. We agree that proximity to infrastructure is important when evaluating project feasibility. We’d like to see mention of local facility plans added to this section; if Trust Lands are in close proximity to infrastructure but the local community does not plan to extend infrastructure towards the Trust Lands in their facility plans, that could be a problem. Finally, the financial aspects of infrastructure improvements should be mentioned. Will the REMB have funds available to pay for infrastructure improvements? If a sewer trunk main is ¼ mile away but no money is available to extend it to Trust Lands the sewer trunk might as well be 4 miles away! It should be made clear that local communities will not pay for these improvements. Also, will money be available to pay for special improvement districts, impact fees and/or paybacks for infrastructure?
10. **Section 2.3.1.8 – Implementation Strategies (Page 2-23)**

This section discusses transfer of development rights. Please refer to comment #3 above regarding TDR.

11. Section 2.3.1.10 – Administration (Page 2-25)

The section on Funding and Land Entitlements includes a list of “entitlements” that the REMB might pursue to increase the value of Trust Lands. We would add annexation to the list; if land is in close proximity to urban areas annexation can significantly increase the value of land. We would also note that “land use designations favorable to development” should also include the growth policy land use designation.

12. Section 2.3.1.12 – Environmental Review and Public Involvement (Page 2-26)

Under the section on Relationship to Local Land Use Regulations we would add annexation review. Although annexation laws are set forth at the state level, local communities are responsible for administering annexation laws.

13. Section 2.3.1.12 – Environmental Review and Public Involvement (Page 2-27)

The section on Relationship to MEPA contains the following sentence: “Where local subdivision or zoning ordinances do not address cultural resources (impacts on historic and archeological sites), the REMB would under MEPA and the Montana Antiquities Act, undertake an analysis of its proposed activities with regard to these resources.” We interpret this sentence as meaning that REMB will not conduct an analysis of historic and archeological sites under MEPA and the Montana Antiquities Act if the local government requires this type of review in their local subdivision or zoning regulations. This seems to conflict with a sentence contained in Section 2.9.2.2 that states: “For example, site-specific socio-economic studies and cultural impact assessments required under the Montana Antiquities Act, would be undertaken for every qualifying project, regardless of whether the assessments are required locally.” Which policy will be pursued? We’d prefer the latter.

Also, any policy to not require a MEPA analysis for information required by local regulations should always be tied primarily to local subdivision regulations. Again, it is very important to note that most Montana communities do not have zoning regulations and reliance upon local zoning to meet REMB MEPA obligations will be ineffectual.

14. Section 2.4 – Implementation of Preferred Alternative (Page 2-29)

The section refers to rural residential tracts as having a density of 1 dwelling unit per 25 acres or greater. This density seems somewhat arbitrary and we’d like to

see an explanation of why the 25 acre number was selected – why not 20 acres, 10 acres, 5 acres?

15. Section 2.6.1.8 – Financial Considerations (Page 2-36)

The section on Job Creation makes it sound like the development of Trust Lands will result in job creation. This conflicts with the statement in Section 2.6.2.8, Job Creation – “Since Trust Lands would only be sharing in the expected growth of a community; no new jobs would actually be created.” The statement included in 2.6.2.8 is the correct one and should also be included in Section 2.6.1.8.

16. Section 2.6.2.9 – Environmental Review and Public Involvement (Page 2-43)

This section states “DNRC would follow model regulations formulated at the state level.” Since the Department of Commerce, Community Technical Assistance Program was eliminated during the 2003 legislative session there is no one at the state level to formulate model regulations.

17. Section 2.6.4.5 – Implementation Strategies (Page 2-48)

The section on RFP Process lists several entitlements that could be pursued to enhance the value of Trust Lands. Again, this list should include annexation and growth policy amendments.

18. Section 2.7 – Description of Reasonably Foreseeable Future Actions Not Part of the Proposed Programmatic Plan But Related to Cumulative Effects (Page 2-51)

This section states: “Development on Trust Lands is expected to have negligible economic, environmental, and social impacts to the local communities since an assumption is made that Trust Lands would not be creating new development opportunities, but, instead, would be responding to accommodate the anticipated growth of a community.” This statement is flawed. The amount of development is not the only factor that can create economic, environmental and social impacts; the type, location and timing of development are also very important. A 100-acre development within a city will have very different impacts than a 100-acre development 30 miles from the nearest town. Leapfrog development, or development of lands that are not ripe for development, can create negative financial impacts for local communities responsible for providing public services. Development of Trust Lands could impact both the location and timing of other developments, especially if street, sewer and/or water infrastructure is installed.

This statement is repeated throughout the document. It represents a very simplistic view of how development really occurs. It should not be included in the document unless additional information is included regarding the impacts that can result from the type, location and/or timing of development – not just the amount of development.

19. **Section 2.9.2 – Objective 2 – Comply with the Montana Environmental Policy Act (MEPA) requirement for developing a programmatic plan, DNRC’s administrative procedures regarding MEPA (ARM 36.2.537) and the Montana Antiquities Act (MCA 22-3-424), in their most current form (Page 2-55)**

This section states: “However, these impacts would occur regardless of whether the development occurs on state lands or elsewhere in the community.” Whether development has negative impacts is largely drive by the amount, type, location and timing of development. To assert that development of state lands will not have negative impacts, because the development would occur somewhere in the area regardless of whether it’s on state lands or not, is too simplistic. The development of state lands could have significant impacts if the land is sensitive or characterized by development constraints. The development of 100 dwelling units on 100 acres on land characterized by wetlands and wildlife habitat that is 25 miles from town will have much different (and possibly greater!) impacts than the development of 100 dwelling units on 20 acres within a city.

20. **Section 2.9.4.2 – Alternatives: Diversified Portfolio and B-1: Diversified Portfolio – Conservation Priority (Page 2-57)**

This section states: “The Department would work closely with local government regulatory processes to facilitate a more simplified project level review.” Seeking special treatment for the REMB would be unfair to other developers who are competing in the marketplace. It would be unethical for the REMB to seek special treatment and unethical for a local government to grant it. In addition, the REMB is relying upon the local review process to comply with MEPA requirements but at the same time will work to undermine the local review. This seems to be contradictory in spirit.

21. **Section 2.9.4.3 – Alternative C: Focused Portfolio and C-1: Focused Portfolio – Conservation Priority (Page 2-57)**

The section discusses the REMB striving for simultaneous and expedited review procedures. Please refer to comment 20 above.

22. Section 2.9.6 – Provide an opportunity for public involvement in decisions affecting residential, commercial, industrial and conservation uses (Page 2-58)

Some development of state land would involve only site development review, and not subdivision. However, the state should not rely upon local zoning review procedures to meet MEPA public involvement requirements. Many zoning reviews are administrative with no public hearing requirements. In addition, public hearings are not required for the first minor subdivision from a tract of record - 76-3-609(3), MCA.

23. Section 2.9.7.3 – Alternative C: Focused Portfolio and C-1: Focused Portfolio – Conservation Priority (Page 2-60)

This section contains the phrases “greatest flexibility in land use authorization” and “make every effort.” From a local government point of view, the state needs to either commit to following local policies and regulatory processes or not. Please see comment #20 above.

24. Table 3-6 – Percentage of Trust Land Managed by REMB (Page 3-17)

There is an asterisk after “Development Lease Acres on Trust Lands” but no notation regarding what the asterisk means.

25. Section 3.2.4.2 – Real Estate Activities (Page 3-25)

This section again refers to TDRs as a land use tool. Please refer to comment #3 above.

In the section on “Leases,” reference is made to full market value of the property. Please clarify whether full market value is based on developed or undeveloped ground.

26. Section 3.2.4.4 – Current Trends in Development (Page 3-30)

Bozeman’s growth policy is known as the Bozeman 2020 Community Plan, not the 20/20 Plan.

27. Section 3.3.2.3 – Assumption for Current Uses (Page 3-53)

It should be noted that rooftops contribute to stormwater runoff along with paved/asphalt areas.

28. **Section 3.3.2.4 – General Statewide Overview (Page 3-65)**
The last sentence of this section does not make any sense.
29. **Section 3.4.4.1 – Statewide Overview (Page 3-112)**
Does “Montana Subdivision law” refer to the Montana Subdivision and Platting Act, the Montana Sanitation in Subdivisions Act, or both?
30. **Section 3.4.4.2 – The Role of Community Infrastructure in the REMB Program (Page 3-112)**
Add water systems to the list of infrastructure to be evaluated.
31. **Section 4.1.2 – Growth Indices (Page 4-4)**
Residential uses are described as being >1 acre and <26 acres. Please see comment #14 above.
32. **Section 4.1.4 – Regulatory Requirements (Page 4-9, 4-10)**
Add “and/or regulations” to the end of the first sentence.

In the following sentence: “In addition to local land use policy and regulatory requirements, activities conducted on Trust Lands will require compliance with a variety of other state regulations” add “and federal” after the word “state.”

33. **Section 4.2.1.2 – Cumulative Effects (Page 4-13)**
This section states: “Development of commercial, residential, or industrial uses on Trust Lands would not necessarily stimulate or promote growth on other state (non Trust) lands.” We disagree with this statement. Development on Trust Lands would likely impact the amount, timing and location of development on non-Trust Lands. Once infrastructure is installed to serve Trust Lands (roads, water, sewer, etc.) adjacent land would be more attractive for development. One of the greatest enticements for development is existing infrastructure.
34. **Section 4.2.2.2 – Direct and Indirect Impacts (Page 4-15 and 4-16)**
This section should include annexation as an example of an entitlement.

35. Section 4.2.5.2 – Direct and Indirect Impacts (Page 4-22), Section 4.2.6.2 – Direct and Indirect Impacts (Page 4-24), and Section 4.2.7.2 – Direct and Indirect Impacts (Page 4-28)

The last paragraph under Alternative A – Current Program, Industrial and Commercial Uses addresses local regulations for controlling sediment. You should not rely upon local zoning regulations to control sedimentation. As stated previously, many Montana communities do not have zoning regulations at all. Even if a community has zoning, sedimentation is often not adequately addressed. The City of Bozeman has a very robust regulatory program, but even we do not do much with sedimentation; we do not have a grading ordinance, which are popular in other more populous states.

36. Section 4.2.5.3 – Cumulative Effects (Page 4-23), Section 4.2.6.3 – Cumulative Effects (Page 4-26), Section 4.2.7.3 – Cumulative Impacts (Page 4-29), Section 4.2.8.3 Cumulative Effects (Page 4-32), Section 4.2.9.3 – Cumulative Effects (Page 4-34), Section 4.2.10.3 – Cumulative Effects (Page 4-37), Section 4.2.11.3 – Cumulative Effects (Page 4-40), Section 4.2.12.3 – Cumulative Effects (Page 4-43), Section 4.2.13.3 – Cumulative Effects (Page 4-45), Section 4.2.14.3 – Cumulative Effects (Page 4-48)

These sections state: “The alternatives would not create a demand for conversion of current land use to commercial, industrial, conservation or residential uses.” While the development of Trust Lands may not impact the demand for the amount of land converted, it could significantly impact the type, location and timing of conversion from current uses to commercial, industrial, conservation or residential uses. Also see comment #18 above.

37. Section 4.2.6.2 – Direct and Indirect Impacts (Page 4-24)

Note that roofs contribute to impervious surfaces.

Note that a decrease in irrigation, as land is converted from agricultural uses to other uses, can significantly impact groundwater recharge.

Note that during development streams are often moved, piped, bridged, etc. which can all negatively impact water quality.

Note that residential development can negatively impact water quality due to lawn fertilizers and pesticides.

38. Section 4.2.7.2 – Direct and Indirect Impacts (Page 4-27)

Note that roofs contribute to impervious surfaces.

Note that during development streams are often moved, piped, bridged, etc. which can all negatively impact fisheries.

Note that residential development can negatively impact fisheries due to lawn fertilizers and pesticides.

Note that in residential development cutting vegetation back from riparian areas to enhance views can negatively impact fisheries.

39. Section 4.2.8.2 – Direct and Indirect Impacts (Page 4-30)

Note the introduction of domestic pets in residential areas can negatively impact wildlife.

40. Section 4.2.10.2 – Direct and Indirect Impacts (Page 4-35)

Note that even with conservation uses weed management is still important.

41. Section 4.2.10.2 – Direct and Indirect Impacts (Page 4-36)

The section under Alternative A – Current Program, Industrial and Commercial Uses discussed the use of local zoning regulations to address noxious weed control. First, local zoning regulations typically do not address noxious weeds. Weed control issues are usually addressed during subdivision. If no subdivision is being done, it is doubtful whether weed control would be addressed at all at the local level (whether there is local zoning in place or not).

Note that roofs contribute to the decrease of vegetative cover just like pavement and roads.

42. Section 4.2.12.2 – Direct and Indirect Impacts (Page 4-41) and Section 4.2.12.4 – Residential Adverse Effects (Page 4-43)

Most Montana communities do not have noise ordinances. Therefore, reliance upon local noise ordinances to address noise impacts is insufficient. What will happen in communities with no noise ordinance?

Note that barking dogs can also be a significant source of noise in residential areas.

43. Section 4.2.12.2 – Direct and Indirect Impacts (Page 4-42) and 4.2.12.3 – Cumulative Effects (Page 4-42)

The section on Residential Uses in Section 4.2.12.2 states: “Depending on the location of the selected trust tract, conversion to residential use may or may not result in noticeable change in noise levels.” However, the first sentence in Section 4.2.12.3 states: “Implementation of any of the Alternatives would not result in an increased or additive impact (cumulative impact) to sensitive receptors as a result of changes in noise levels associated with designated land uses described above.” There appears to be a conflict between these two statements.

44. Section 4.2.13.2 – Direct and Indirect Impacts (Page 4-43)

This section implies that aesthetics are only a consideration in non-urban areas. We greatly disagree. Aesthetic issues, such as viewshed preservation, are very important in urban areas. Many communities, including Bozeman, go to great lengths to address aesthetic aspects of development. It must be recognized that aesthetics involves more than preservation of the natural landscape. In urban areas, aesthetics relate to good urban design, excellence in architecture and landscape architecture, the provision of urban green spaces, preservation of viewsheds, etc. Please include a discussion of aesthetic considerations in urban areas.

Please note that light pollution can significantly impact aesthetics in both rural and urban areas.

45. Section 4.2.13.3 – Cumulative Effects (Page 4-45)

This section states: “Development of residential uses on Trust Lands may add to the visual changes evolving from urban-suburban sprawl ongoing in many areas of the state.” The PEIS is basically admitting that residential development of Trust Lands could contribute to sprawl and the undesirable impacts of sprawl such as aesthetic impacts. We would like to know that the state will work to discourage sprawl on Trust Lands, or how the state will mitigate negative impacts

of sprawl it creates. The state comes out ahead by making more money while the local community suffers the financial, environmental and aesthetic impacts of sprawling development of Trust Lands.

46. Section 4.2.13.4 – Residual Adverse Effects (Page 4-45)

The second sentence should be rewritten as follows: “Compliance with local zoning (where applicable) and subdivision regulations, and incorporation of natural landscape retention in residential development design where required, would reduce residual effects from development.” This change would recognize that all Montana communities are required to have subdivision regulations while many Montana communities do not have, and are not required to have, zoning regulations. This section assumes that local communities have “natural landscape retention” provisions in their local zoning and/or subdivision regulations. We believe this assumption to be incorrect. You would probably find that most local zoning and/or subdivision regulations do not have provisions regarding “natural landscape retention.” If the local community does not have “natural landscape retention” regulations, what is the state proposing to do to ensure that aesthetics are maintained?

47. Section 4.2.15.1 – Statewide Overview (Page 4-50)

This section states: “Montana’s land use statutes, particularly the Montana Subdivision and Annexation statutes require extension of services to support new development.” First, does “Montana Subdivision statutes” refer to the Montana Subdivision and Platting Act and/or the Montana Sanitation in Subdivisions Act? Second, the use of the word “extension” seems to imply that municipal water and sewer must be extended to new subdivisions or annexations. This is simply not true. Subdivisions must be provided with water and sewer facilities, but these could be provided with on-site systems or community systems; they do not necessarily involve the “extension” of anything.

48. Section 4.2.16 – Taxation – Property Tax (Page 4-52)

This section implies that the development of Trust Lands would not negatively impact the financial health of local communities. We disagree. It is a well-known fact that rural residential development typically does not “pay its own way” when it comes to property taxes collected verses the cost of services provided. There are many costs of services of studies, including Montana-specific studies, which bear this out. Rural residential development typically produces a fraction of the funds in taxes that it costs the local community to provided the development with street maintenance, fire protection, etc.

49. Section 4.3.1 – Monitoring (Page 4-56)

State law requires that growth policies be reviewed and, if needed, revised every five years.

50. Chapter 4 – Environmental Consequences (Page 4-1 through 4-56)

We would like to see the inclusion of sections that address the following:

- The impact the development of Trust Lands would have on prime agricultural lands, agricultural uses, agricultural water facilities, and agricultural water users.
- The impact the development of Trust Lands would have on light pollution. You included a discussion of noise pollution, but light pollution is also a considerable problem.
- The impact the development of Trust Lands would have local services such as schools, libraries, parks, fire protection, police protection, solid waste disposal, etc.

51. Section 5.2.1.3 – Subdivision and Platting (Page 5-8)

A public hearing is not required for the first minor subdivision from a tract of record. The environmental assessment is not required for the first minor subdivision from a tract of record. Subdivisions totally within an area that has all of the following are exempt from the requirement of an environmental assessment:

- An adopted growth policy;
- Zoning regulations; and
- A strategy for the development, maintenance, and replacement of public infrastructure.

52. Table 5-2 – Item #1 (Page 5-9)

A public hearing is not required for the first minor subdivision from a tract of record. Public notification is not required for all zoning reviews. The City of Bozeman handles many zoning reviews administratively without public notice or a public hearing. How will the state provide public involvement if they are pursuing a review process with no public involvement requirement?

53. Table 5-3 – Item #4 (Page 5-10)

Although growth policies are required to include information regarding natural resources, the extent to which a growth policy addresses natural resources is at the full discretion of the governing body. Therefore, there is no guarantee that detailed information regarding geology and soil quality, stability and moisture will be available in a growth policy. Even when information is provided, it is often not detailed enough for site-specific evaluation.

The environmental assessment is not required for the first minor subdivision from a tract of record. Subdivisions totally within an area that has all of the following are exempt from the requirement of an environmental assessment:

- An adopted growth policy;
- Zoning regulations; and
- A strategy for the development, maintenance, and replacement of public infrastructure.

If there is no environmental assessment required, will the state still provide information to address geology and soil quality, stability and moisture impacts?

54. Table 5-3 – Item #5 (Page 5-10)

Although growth policies are required to include information natural resources, the extent to which a growth policy addresses water quality, quantify and distribution is at the full discretion of the governing body. Therefore, there is no guarantee that detailed information regarding water quality, quantify and distribution will be available in a growth policy. Even when information is provided, it is often not detailed enough for site-specific evaluation.

The environmental assessment is not required for the first minor subdivision from a tract of record. Subdivisions totally within an area that has all of the following are exempt from the requirement of an environmental assessment:

- An adopted growth policy;
- Zoning regulations; and
- A strategy for the development, maintenance, and replacement of public infrastructure.

We think you would find that most subdivision and/or zoning regulations do not collect detailed enough information to evaluate the items listed in Item #5. If local subdivision and/or zoning regulations do not collect detailed information to address these items will the state still provide information to address water quality, quantify and distribution?

55. Table 5-3 – Item #6 (Page 5-10)

Although growth policies are required to include information regarding natural resources, the extent to which a growth policy addresses air quality is at the full discretion of the governing body. Therefore, there is no guarantee that detailed information regarding air quality will be available in a growth policy. The City of Bozeman has a very detailed growth policy but it contains very little information regarding air quality.

The environmental assessment is not required for the first minor subdivision from a tract of record. Subdivisions totally within an area that has all of the following are exempt from the requirement of an environmental assessment:

- An adopted growth policy;
- Zoning regulations; and
- A strategy for the development, maintenance, and replacement of public infrastructure.

We think you would find that most subdivision and/or zoning regulations do not collect detailed enough information to evaluate the items listed in Item #6. The City of Bozeman has a very robust regulatory program but we do not collect information regarding air quality during project review. If local subdivision and/or zoning regulations do not collect detailed information to address these items will the state still provide information to address air quality?

56. Table 5-3 – Item #7 (Page 5-10)

Although growth policies are required to include information regarding natural resources, the extent to which a growth policy addresses vegetation cover, quantity and quality is at the full discretion of the governing body. Therefore, there is no guarantee that detailed information regarding vegetation cover, quantity and quality will be available in a growth policy. Even when information is provided, it is often not detailed enough for site-specific evaluation. The City

of Bozeman has a very detailed growth policy but it does not include information regarding vegetation cover, quantity and quality.

The environmental assessment is not required for the first minor subdivision from a tract of record. Subdivisions totally within an area that has all of the following are exempt from the requirement of an environmental assessment:

- An adopted growth policy;
- Zoning regulations; and
- A strategy for the development, maintenance, and replacement of public infrastructure.

We think you would find that most subdivision and/or zoning regulations do not collect detailed enough information to evaluate the items listed in Item #7. The City of Bozeman has a very robust regulatory program but we collect very little information regarding vegetation cover, quantity and quality during project review; it is certainly not detailed enough to evaluate the issues listed in Item #7. If local subdivision and/or zoning regulations do not collect detailed information to address these items will the state still provide information to address vegetation cover, quantity and quality?

57. Table 5-3 – Item #8 (Page 5-10) and Item #9 (Page 5-11)

Although growth policies are required to include information regarding natural resources, the extent to which a growth policy addresses terrestrial, avian and aquatic habitats is at the full discretion of the governing body. Therefore, there is no guarantee that detailed information regarding terrestrial, avian and aquatic habitats will be available in a growth policy. Even when information is provided, it is often not detailed enough for site-specific evaluation. The City of Bozeman has a very detailed growth policy but it does not include very detailed information regarding terrestrial, avian and aquatic habitats.

The environmental assessment is not required for the first minor subdivision from a tract of record. Subdivisions totally within an area that has all of the following are exempt from the requirement of an environmental assessment:

- An adopted growth policy;
- Zoning regulations; and

- A strategy for the development, maintenance, and replacement of public infrastructure.

We would be surprised in local governments requested that “appropriate agencies” review site-specific zoning proposals for impacts on terrestrial, avian and aquatic habitats. The City of Bozeman has very robust zoning requirements but we would typically not have “appropriate agencies” review site-specific zoning proposals for impacts on terrestrial, avian and aquatic habitats. If local subdivision and/or zoning regulations do not collect detailed information to address these items will the state still provide information to address terrestrial, avian and aquatic habitats?

58. Table 5-3 – Item #11 (Page 5-11)

We would be surprised if most local regulations required information sufficient in detail to address the issues listed in Item #11. If local subdivision and/or zoning regulations do not collect detailed information to address these items will the state still provide information to address aesthetics?

59. Table 5-3 – Item #12 (Page 5-11)

Although growth policies are required to include information regarding natural resources, the extent to which a growth policy addresses demands on environmental resources of land, water, air or energy is at the full discretion of the governing body. Therefore, there is no guarantee that detailed information regarding environmental resources of land, water, air or energy will be available in a growth policy. Even when information is provided, it is often not detailed enough for site-specific evaluation. The City of Bozeman has a very detailed growth policy but it does not include information regarding environmental resources of land, water, air or energy. If local growth policies do not contain detailed information to address these items will the state still provide information to address environmental resources of land, water, air or energy?

60. Table 5-4 – Item #16 (Page 5-12)

The City of Bozeman does not collect the following information during subdivision or zoning review: the number and type of employees, wages and where employees would come from. Therefore, we do not collect any information that would allow us to answer the questions listed in Item #16. We would be surprised if any zoning or subdivision regulations in the state collected this type of information. If local subdivision and/or zoning regulations do not collect detailed information to address these items will the state still provide information to address the quantity and distribution of employment?

61. Table 5-4 – Item #17 (Page 5-12)

Growth policies are not required to contain information regarding the local and state tax base and tax revenues, and we would be very surprised in any growth policies contain this information. The City of Bozeman has a very detailed growth policy but it does not contain this type of information. We do not conduct analysis of project impacts on the local tax base during zoning or subdivision review. We would be surprised if any Montana communities prepared this type of analysis during zoning or subdivision review.

62. Table 5-4 – Item #22 (Page 5-12)

Not all zoning reviews require public notification and opportunities to comment.

Generally, we find that the state would be relying entirely too much on local government to collect information needed to address MEPA requirements. Most local regulations are simply not going to collect all of the information required to sufficiently meet MEPA requirements.

We also found many typographical errors, which we have noted in the document. If you would like, we can send our redlined document to you to aid in editing.

DNRC
PO Box 201601
Helena, MT 59620-1601

RECEIVED
JUL 16 2004
D.N.R.C.

To Whom It May Concern:

I am writing to express my opinion with regard to the public comment period for State Land use.

As a co-owner of a state-lease property on Echo Lake, my first preference would be an option to buy this property outright from the state at fair market value. I know that the state has sold some of their lakefront leases around Holter Reservoir, and we would be most interested in purchasing this property if possible.

Otherwise, we favor the "Status pro" option. We have given some consideration to retirement at this property, but it isn't a remote possibility if the lease may expire or if the lease rates continue to jump at 100% increments.

Thank you for the opportunity to give our input into this issue. We feel that if the state wisely invested the funds from the sale of some of their more unique properties, they will no longer have the expense of managing them year-to-year and the benefit to the school system may well exceed the current benefits. Please let us know if there is any consideration being given to selling selected parcels as one of the possible options.

Debra & Joe Bowers
2113 Hwy 206
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bowers@bigsky.net
(406) 892-4910

August 18, 2004

Real Estate Management Programmatic EIS Team
DNRC
P.O. Box 201601
Helena, MT 59620-1601

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AUG 19 2004

D.N.R.C.

Please accept the following comments on the Draft Real Estate Management Programmatic Environmental Impact Statement on behalf of the Alliance for the Wild Rockies. We believe that this EIS is vague and lacking meaningful analysis of the impacts of each alternative.

DNRC does not have a mechanism for tracking costs, including market research, etc. To implement four of the five alternatives will require a larger budget for DNRC and more full time employees yet costs will merely be estimated. DNRC must track the costs to implement any of its programs on trust lands in order to determine whether it is really providing more revenue to the school trust or merely taking money from the taxpayers and funneling it back to the school trust. The Land Board and DNRC have a fiduciary responsibility to the school trust, estimating rather than tracking costs does not fulfill this trust duty. It appears that DNRC is attempting to increase the size of DNRC rather than fulfilling its fiduciary responsibility to the school trust.

The presumption in this plan that DNRC needs "to generate increased and diversified revenues from alternative management strategies" is a departure from the Trust Land Management Division's existing mission statement which states, "Manage the State of Montana's trust land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income generating capacity of the land." This change gives short-term gains priority over protecting the long-term trust assets. The premise of the school trust is a land-based ethic whereas the premise of the Plan is a transition from this land ethic to a strictly short term monetary return. That refuses to account for costs. DNRC is practicing Enron style economics. Any good manager would want to know what the costs are instead of only the revenue.

The DEIS failed to disclose where lands were located that would be considered for development. There was no mapped inventory of lands that would come under Special Uses or their current use (i.e., timberlands, grazing, etc.) Lists of acreage amounts in each land office is not sufficient and does not provide the reader or Land Board with the information necessary to assess the effects or make an informed decision.

Furthermore, the DEIS fails to disclose what lands are currently included in the timber lands being analyzed in the Sustained Yield Study and how changing the use for those lands will affect meeting the sustained yield target on a shrinking land base. The DEIS at page 3-47 dismisses this issue by merely stating that it will have a minimal

effect on the sustained yield and it will be dealt with when the sustained yield is updated in 10 years. This is unacceptable. The sustained yield is a target for timber extraction that DNRC believes it must meet every year. If timberlands are converted to other uses that means that more logging must occur on less acreage than was analyzed in the sustained yield study. This has an effect on wildlife habitat, water quality, fish, old-growth forests, big game, hunting and fishing opportunities and other recreation that was completely ignored in the DEIS.

Regarding access on page 3-47 the DEIS states: "When timber management remains the predominant use, SFLMP direction would prevail, unless a secondary use provides for funding and adequate analysis to warrant a different standard. When Programmatic EIS uses are predominant, Programmatic EIS direction or specifications in the document authorizing use would prevail." However, the Programmatic EIS provides no direction for access nor does there appear to be a mechanism to determine how timber use will be superseded by another use.

The DEIS proposes to use a funnel filter approach to determining whether other uses will replace existing uses. However, the funnel filter as outlined on page 2-18 has no biological filter so it fails to determine whether an area should remain undeveloped due to presence of threatened, endangered or sensitive species, old-growth forest habitat, wetlands, heron rookeries, nesting areas, native fish habitat, and other biological factors. By not having a biological filter DNRC fails to comply with other state laws and the Montana Constitution.

The impacts of sprawl are not disclosed or analyzed. It appears that DNRC will be reacting to perceived market conditions and will proceed with development without consideration as to how development on their land is contributing to sprawl, unplanned development and private land valuation.

There is no provision for limiting sprawl or preserving open space.

There appears to be no mechanism for resolving conflicts between uses.

The overall premise of the DEIS is that this program will increase funding to schools. This is flawed because the legislature controls school funding so any increased return from school trust lands will primarily reduce the tax burden of all public services in the state rather than provide additional support for public education. (Montana's State Forests, Schools and Quality of Life: An Economic Analysis, Thomas Michael Power, 1996)

There does not appear to be a provision to adopt a strict, independent appraisal system to objectively determine full market value. DNRC in-house appraisals could reflect a bias of the agency towards converting lands to special uses in reaction to short-term market conditions.

The DEIS does not disclose how it relates to the Land Banking rules that are undergoing public review concurrently with this EIS.

There appears to be no link to existing commitments like the Swan Valley Conservation Agreement or the State Forest Land Management Plan. It's as if these legally binding documents no longer exist for purposes of land transfer, new lease or sale.

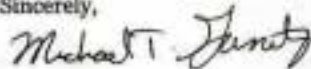
While the DEIS lays out a procedure for the Habitat Conservation Plan's Relationship to Transitional Lands it is premature to rely on this. The HCP has not been released in draft form yet nor has the public been given an opportunity to review it and provide the DNRC and USFWS with comments. At this time how the HCP will deal with land sales is purely speculative and predecisional.

The DEIS does not adequately analyze or disclose the impacts to many natural resources such as soils, water quality, fish, wildlife, etc. Almost the entire DEIS analysis is a cut and paste job with the same redundant statements for every resource listed: 1) there will be no increased or additive impacts (cumulative impact), 2) implementation of any of the alternatives would not result in an irreversible or irretrievable commitment of resources and 3) short-term impacts are not expected to impact long-term productivity. This is not an environmental analysis and fails to meet the minimum requirements of MEPA. If an area is paved and developed of course there are going to be impacts to soils, productivity, wildlife, etc. For DNRC to state that there will not be impacts is totally unbelievable, irresponsible and illegal.

We do not believe that the issues we raised in our scoping comments were addressed in the DEIS. In fact we saw no response to any of the comments that were printed in Appendix A. This is a violation of MEPA.

Thank you for your time.

Sincerely,



Michael Garrity
Executive Director
Alliance for the Wild Rockies
P.O. Box 505
Helena MT 59624

DNRC
PO Box 201601
Helena, MT 59620-1601

RECEIVED
JUL 16 2004
D.N.R.C.

To Whom It May Concern:

I am writing to express my opinion with regard to the public comment period for State Land use.

As a co-owner of a state-lease property on Echo Lake, my first preference would be an option to buy this property outright from the state at fair market value. I know that the state has sold some of their lakefront leases around Holter Reservoir, and we would be most interested in purchasing this property if possible.

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Thank you for the opportunity to give our input into this issue. We feel that if the state wisely invested the funds from the sale of some of their more unique properties, they will no longer have the expense of managing them year-to-year and the benefit to the school system may well exceed the current benefits. Please let us know if there is any consideration being given to selling selected parcels as one of the possible options.

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AUG 26 2004

D.N.R.C.

CASCADE COUNTY

BOARD OF COMMISSIONERS

325 2nd Avenue North

Great Falls, MT 59401

Tel: (406) 454-6810

Fax: (406) 454-6345

commission@co.cascade.mt.us

www.co.cascade.mt.us

August 18, 2004

Ms. Jeanne Holmgren, Bureau Chief
Real Estate Management Bureau
Montana Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620-1601

RE: Draft Programmatic Environmental Impact Statement
Real Estate Management Plan

Dear Ms. Holmgren:

Thank you for this opportunity to comment on the referenced draft EIS documents, regarding alternative strategies for the management of state Trust Lands. It is our understanding the preferred alternative will become the Real Estate Management Bureau's, "Real Estate Management Plan" for the next 20 years.

We agree with a number of the points and issues spelled out in the draft document. Specifically, it appears the REMB is facing a number of new challenges for generating revenue from real estate activities on Trust Lands, especially those related to residential, commercial, and industrial land uses. With our changing economic environment in the State of Montana, opportunities now exist to generate even greater income. With the REMB currently managing land uses in a reactive manner without the benefit of a well-defined planning process or decision making framework, the ability to take full advantage of these opportunities is limited. Additionally, we agree that the REMB lacks a methodology for determining the suitability of land for the development of the various uses under its jurisdiction and consequently limits its ability to take full advantage of unique opportunities. In order for REMB to be able to establish a successful real estate program, it will need to rely on a close association with local land use planning and regulatory processes. The REMB has come of age to step out and be more proactive in its management of state Trust Lands. Local forces are in place, from both the public and private sectors, which are applying strong pressures and influences upon the REMB to pursue the highest and best uses for state Trust Lands. The REMB and Land Board need to have the tools, resources and authority to more appropriately and skillfully manage lands of its responsibility.

During our review of the draft EIS document, it was reassuring to learn that all five of the land management strategies under consideration are structured to closely adhere to local land development review processes. It was also interesting to learn that while the greatest amount of Trust Land revenue is generated from agriculture and grazing activities, the net return per acre on these types of uses is the lowest. And that, the highest net return per acre is actually from non-resource based activities, including residential, commercial, and industrial uses, which comprise less than one percent of the Trust Land base.

Based on our review of the five alternative management strategies, as well as our overall interest to see the REMB be more proactive in its marketing of state Trust Lands, especially from non-resource based activities (residential, commercial and industrial uses), we urge that Alternative C be selected as the preferred strategy.

We support this preferred strategy because of its positive impact on urban and suburban planning and in solving problems particular to our area. Specifically, this strategy could help to address what we feel to be a unique situation in Cascade County or, at least, may not be common in other areas of Montana. This is where new residential and commercial projects are being blocked by large, adjoining tracts of Trust Land. This configuration prevents the development of higher density residential and commercial projects in the immediate area of the Trust Land and prevents the extension of community services through, adjacent to and beyond the tract of Trust Land. Consequently, this promotes and forces development activities to "leap" beyond the Trust Lands, which further contributes to the undermining of local land use regulations and growth policies, as well as create lower density developments and smaller tax bases, which do not sufficiently generate the level of tax revenues needed by local governments to fund the public services, roadways, and facilities demanded by these lower density developments. An example is the tract of Trust Land located along the east side of Fox Farm Road and immediately south of the Great Falls city limits.

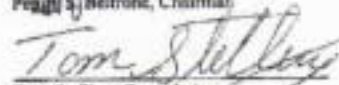
In summary, we fully commend the Department of Natural Resources and Conservation for its foresight in studying alternative land management strategies. Further, we wholeheartedly support the development and implementation of Alternative C.

Thank you in advance for your careful consideration of our comments while preparing and adopting a final Real Estate Management Plan.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
OF CASCADE COUNTY


Peggy S. Beltrone, Chairman


Tom Stelling, Commissioner


Lance Olson, Commissioner



August 17, 2004

**FRIENDS OF THE WILD SWAN
P.O. BOX 5103
SWAN LAKE, MT 59911**

RECEIVED

AUG 19 2004

D.N.R.C.

Real Estate Management Programmatic EIS Team
DNRC
P.O. Box 201601
Helena, MT 59620-1601

Please accept the following comments on the Draft Real Estate Management Programmatic Environmental Impact Statement on behalf of Friends of the Wild Swan. While we understand that a programmatic EIS must cover many issues over a large area we found this EIS to be overly vague and lacking meaningful analysis of the impacts of each alternative.

- The DEIS failed to disclose where lands were located that would be considered for development. There was no mapped inventory of lands that would come under Special Uses or their current use (i.e., timberlands, grazing, etc.) Lists of acreage amounts in each land office is not sufficient and does not provide the reader or Land Board with the information necessary to assess the effects or make an informed decision.

Furthermore, the DEIS fails to disclose what lands are currently included in the timber lands being analyzed in the Sustained Yield Study and how changing the use for those lands will affect meeting the sustained yield target on a shrinking land base. The DEIS at page 3-47 dismisses this issue by merely stating that it will have a minimal effect on the sustained yield and it will be dealt with when the sustained yield is updated in 10 years. This is unacceptable. The sustained yield is a target for timber extraction that DNRC believes it must meet every year. If timberlands are converted to other uses that means that more logging must occur on less acreage than was analyzed in the sustained yield study. This has an effect on wildlife habitat, water quality, fish, old-growth forests, big game, hunting and fishing opportunities and other recreation that was completely ignored in the DEIS.

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We do not believe that the issues we raised in our scoping comments were addressed in the DEIS. In fact we saw no response to any of the comments that were printed in Appendix A.

Sincerely,


Arlene Montgomery
Program Director

**MONTANA ENVIRONMENTAL INFORMATION CENTER***"Working to Protect and Restore Montana's Natural Environment Since 1973"*Via Facsimile

To: Trust Land Management Division of the Montana Department of Natural Resources and Conservation.

From: James D. Jensen, Executive Director, MEIC.

A handwritten signature in dark ink, appearing to read "J. Jensen", is placed over the "From:" line.

Date: August 20, 2004

RE: Comments on the Draft Real Estate Management Programmatic Environmental Impact Statement.

MEIC would like to join in the comments submitted by the Montana Smart Growth Coalition and does so by reference:

In particular, MEIC agrees that the DPEIS fails to include the criteria and direction necessary to optimize the long-term revenue generation for trust beneficiaries and concomitantly protect Montana's environment and taxpayers from adverse and cumulative impacts that real estate and development decisions on state trust lands could have - regardless of which of the proposed alternatives is selected as the preferred alternative.

The DPEIS is based on the false assumption that a large percentage of school trust lands should be made available for either commercial leases or for sprawling rural subdivisions - regardless of the impact that the development will have on local infrastructure, on the efficient and attractive future growth of communities, on the health of downtown areas, or on the environment.*

The DPEIS as written would lead to reactive management that would neither maximize the long term revenues of the trust lands nor lead to attractive and efficient development.

Standard Comment Form COMMENTS DUE BY AUGUST 20, 2004
Draft Real Estate Programmatic EIS

Date: 7-17-04 1738 LaBrant Rd. Bigfork 59911
Name: John L Owen Address: City/Zip:

Please try to provide specific comments

General Comments: I'm A HOMEOWNER ON Lot #29 Echo Lake
RETIRED AND WANTING TO purchase this Lot, AS I'm A
PERMANENT RESIDENT YEAR AROUND. PLEASE CONSIDER
my proposal.

Chapter 1:

RECEIVED

JUL 20 2004

D.N.R.C.

Chapter 2:

Chapter 3:

Chapter 4:

Chapter 5:

Note: You may choose to provide written comments in any desired format. This form is only provided for convenience. All written comments must be directed to: Real Estate Management Programmatic EIS Team, Department of Natural Resources and Conservation, P.O. Box 201601, Helena, MT 59620 - 1601

Handout for Public Meetings, July 2004



Swan View Coalition

"People Helping People Help the Earth"

3165 Foothill Road, Kalispell, MT 59901
406-755-1379 www.swanview.org

August 14, 2004

Real Estate Management Programmatic EIS Team
DNRC
PO Box 201601
Helena, MT 59620-1601

Dear Folks at DNRC;

Please accept for the record the following comments on your Draft Real Estate Management Programmatic Environmental Impact Statement.

We find the proposal to sell or otherwise dispose of Trust Lands to be at odds with the mission of the TLMD: "to produce revenues for the Trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land." Similarly, we find the proposal to sell or otherwise dispose of Trust Lands to be at odds with the MCA requirement: "The greatest monetary return must be weighed against the long-term productivity of the land to ensure continued future returns to the trusts."

The real estate market has improved largely because people have lost faith in the reliability of the stock market, choosing to instead invest in more reliable real estate. DNCR, on the contrary, intends to do the opposite by selling Trust Lands and perhaps investing the revenue in the unreliable stock market. This fails to insure long-term revenue from Trust Lands, fails to protect the future income-generating capacity of the land, and fails to protect the long-term productivity of the land. Once it is sold, it is gone along with the ability to raise revenue from it.

There is a simple saying that sums up the Trust responsibility to pass this Trust along to our children: Montana Trust Land - pass it on. Selling Trust Lands is nothing more than short-term gain at the expense of our children's future.

We find the DPEIS Summary Comparison of Effects to be essentially worthless. The "plus" signs give no clear indication of whether the "elevated and relative impact" is in the end positive or negative. Our faith is further eroded when we read how negative effects of the action alternatives are continually and essentially discounted to zero or near zero. How can a substantial acreage of Trust Lands be sold for development at the whim of the new owner without consequent considerable

adverse effects to, for instance, water quality? The roads, parking lots, excavation, water development, sewers, use of pesticides and fertilizers, etc. that normally accompany development all have adverse effects on water quality, even when done in the best manner possible. Similarly, it is ludicrous to state that the selling of Trust Lands and their subsequent development will have no change in effects on community infrastructure, culture, aesthetics, and fisheries.

We urge DNRC in the strongest of terms to not sell Trust Lands and to go back to the drawing board in its assessment of the effects of its proposed alternatives that would do so. An adequate analysis of effects would point clearly toward the wisdom of retaining these lands in the public Trust.

Think long-term and avoid the rush to sell land when others are rushing to buy land because it is a more reliable investment than the stock market.

Montana Trust Land - pass it on!

Thank you for this opportunity to comment.

Sincerely,



Keith J. Hammer
Chair

Appendix B

Population and Economic Conditions of DNRC Land Office Regions

Dr. Paul Polzin, Economist

May 2004

Introduction

This section presents summaries of the economic conditions in each of the DNRC Land Office Regions. Both long-term and short-term economic conditions are measured using several indicators. The Regional Economic Information System of the U.S. Bureau of Economic Analysis provided most of the data reported in the following sections. Data tables are provided for each DNRC Land Office Region with a state total shown in Table 1.

Economic Indicators.

Economic conditions in the land office regions were measured using three indicators; population, per capita income, and nonfarm labor income. These variables reflect different aspects of the local economy and together provide a comprehensive overview of general conditions.

Population measures the total number of persons in the area, which underlie the demand for housing, consumer goods, and other items.

Per capita income is equal to total personal income divided by population. It measures average income per person. Per capita income is an indicator of economic well-being. The greater per capita income the more goods and services the average resident can buy. Per capita income does not incorporate non-monetary incomes some Montanans claim to receive. Per capita income is reported in constant dollars to eliminate the effects of inflation.

Nonfarm labor income is a proxy for Gross Domestic Product (GDP), which is not estimated for counties or other local areas. Changes in nonfarm labor income measure the changes in GDP. Agriculture is excluded because its volatility masks trends elsewhere in the economy. The analysis does not ignore farms and ranches; they will be explicitly discussed in the DNRC Land Office regions where they are important, and agriculture is included as one of the basic industries. Nonfarm labor income is reported in constant dollars to eliminate the effects of inflation

DNRC Land Office Regions.

DNRC Land Office Regions are not true regional economies, but are multi-county areas created for administrative purposes. This means that certain relationships or factors that are thought important in specific local economies may not be well represented in multi-county data. For example, part-time residents are thought to be an important driver of economic conditions in certain areas of Flathead County and State Government is a major component of the economic base in the Helena area. (Swanson, Polzin) These factors, although significant for specific communities or counties, are relatively unimportant in multi-county DNRC Land Office Regions and will not be discussed in this section..

Basic Industries

Basic industry labor incomes are presented for each DNRC Land Office to characterize the region (e.g. agricultural or wood products orientation) and to explain the important trends in the economic indicators. Basic industries are those activities that primarily sell their products outside the area or are otherwise dependent on events outside the area. Basic industries inject new dollars into the economy that create additional income as they are spent and re-spent locally. Changes (either growth or decline) in the basic industries lead to further changes in the rest of the economy.

Labor income is presented for seven basic industries that are significant statewide. Agriculture is represented by two industries: agriculture and agricultural services and forestry. The first is the labor income earned directly by farmers and ranchers while the second represents activities closely tied to agriculture. The changing character of Montana agriculture away from production and toward associated activities is reflected in declines in agricultural labor income and growth in agricultural services. In western Montana, the increases in agricultural services and forestry were mostly due to growth the forestry category.

Mining consists of three components: coal mining; oil and gas extraction; and mineral and non-mineral extraction. Transportation includes railroads and trucking.

Manufacturing varies significantly from one part of Montana to another. In Western Montana, wood and paper products is the largest component. In Eastern and Central Montana, manufacturing includes the oil refineries in the Billings area, the high tech companies around Bozeman, and a variety of small manufacturers.

Nonresident travel is the tourism industry. These figures include persons visiting Montana for both business and pleasure, and include portions of several tourist-related industries. The estimates presented here were based on total nonresident spending provided by the Institute for Tourism and Recreation Research.

Federal Government labor income includes persons working for various agencies such as the USDA Forest Service, the Bureau of Land Management, and the U.S. Post Office. The land managers and other professionals earn relatively high salaries and make the federal government a relatively large component of the economic base as measured by labor. But, the trends in this sector are relative stable, and the federal government may service to buffer the volatility in other basic industries.

The Northeast Land Office

Description.

The Northeast Land Office is located in Lewistown. The persons in this office administer trust land in fifteen northeastern counties. The other major communities in the region are Havre, Glasgow, and Plentywood.

The total 2000 population in this region was 79,706 persons, representing approximately 8.8 percent of the state total. Nonfarm labor income during 2000 was \$781 million (2000 dollars), about 6.0 percent of the total for Montana. If agricultural labor income (three year average) is added, the total rises to about \$1.5 billion (2000 dollars), or 11.4 percent of the corresponding state total. The average per capita income in this region was \$20,365 (2000 dollars) in 2000, about 9.6 percent below the statewide figure and the lowest of the six regions.

Long-Term Trends.

Population. The Northeast Region experienced overall population declines during the last thirty years. The number of persons dropped from 90,855 in 1970 to 79,706 in 2000. The fastest decline was in the 1980s, when population decreased at an average of 0.8 percent per year. The rate of decline moderated in between 1990 and 2000, when the decrease averaged 0.4 percent per year. Overall, the Northeast Region ranked fifth out of the six regions in terms of population growth. Conversely, it ranked second (behind the Southeast Region) in terms of population decline.

Per-capita Income. Per-capita income rose from \$15,707 (2000 dollars) in 1970 to \$20,365 (2000 dollars) in 2000. However, this growth was less than the statewide average and this region's figure dropped from 106.6 percent of Montana's per-capita income in 1970 to 90.4 percent in 2000. Most of this relative decline occurred between 1970 and 1980. During the 1980s and 1990s, the Northeast Region's per-capita income stabilized at roughly 90 percent of the statewide average.

Nonfarm Labor Income. This measure of overall economic performance grew an average of 2.9 percent per year in the 1970s, declined an average of 1.4 percent per year in the 1980s, and then resumed its growth at a 0.6 percent average annual rate in the 1990s. During the 1980s, this region was the fifth of the six regions in terms of nonfarm labor income growth, and it was the slowest growing region in the 1990s.

Short-Run Trends.

The economic indicators gave mixed messages in terms of this region's short term economic performance. The population continued to decline at an accelerated rate in the last half of the 1990s while nonfarm labor income growth accelerated between 1995 and

2000. Per-capita income growth accelerated slightly between 1995 and 2000, but this was less than statewide and per capita income dropped to 90.4 percent of Montana's.

Basic Industries.

Agriculture is, by far, the dominant basic industry in this region, and its volatility and generally downward trend are clearly present in the data. Agricultural labor income dropped from \$395 thousand (2000 dollars) in 1970 to \$72 thousand (2000 dollars) in 1980. It also varied from roughly \$200 thousand (2000 dollars) in 1990 to \$138 thousand (2000 dollars) in 2000. The figures for agriculture reported in Table 2 are three-year averages, and the volatility would have been even greater if the raw numbers were reported.

The mainline of the (now) BNSF railroad runs through this region, and represents most of the transportation category. Upgrading of the Hi-line during the late 1970s and early 1980s accounted for the peak in this category. Manufacturing is small in this region, and no one industry dominates.

Oil and gas related activities account for the largest share of mining. There was a boom these activities that began in the mid 1970s, peaked in the 1980s, and then declined thereafter. A large metal mine (gold) opened in the mid 1980s and closed about ten years later, exacerbating the decrease in oil and gas exploration.

The Central Land Office

Description.

The Central Land Office is located in Helena. There are fourteen counties in this region, which ranges from Wyoming to the Canadian border along the eastern front of the Rocky Mountains. The other major cities in this region are Great Falls and Bozeman. Conrad, Shelby, and Dillon are smaller cities in the region.

This is the largest DNRC Land Office Region in terms of population and overall economic activity. The 2000 population in this region was 285,863 persons, representing approximately 31.7 percent of the state total. Nonfarm labor income during 2000 was \$4.4 billion (2000 dollars), about 33.4 percent of the state total. Per capita income in this region averaged \$23,351 (2000 dollars) in 2000, about 3.7 percent above the figure for Montana.

Long-Term Trends.

Population. The Central Region experienced overall population growth between 1970 and 2000. The number of persons increased from 214,890 in 1970 to 238,074 in 1980, an average increase of 1.0 percent per year. The growth rate decelerated to 0.5 percent per year during the 1980s, and then accelerated to 1.3 percent per year in the 1990s. Overall,

the Central Region's population growth rates in the 1980s and 1990s were roughly equal to the statewide average.

Per-capita Income. Per-capita income rose from \$15,468 (2000 dollars) in 1970 to \$23,351 (2000 dollars) in 2000. This growth was approximately equal to the statewide average and this region's per capita income remained three to five percent above the corresponding figure for Montana.

Nonfarm Labor Income. The overall economy of the Central Region grew an average of 3.4 percent per year in the 1970s, decelerated to 0.1 percent per year in the 1980s, and then accelerated to 3.4 percent average annual rate in the 1990s. Nonfarm labor income growth in this region was above the statewide figure most of the entire 1970 to 1990 period. It ranked second out of the six regions in the both the 1980s and the 1990s. The Central Region was only one of two regions to post an increase in the 1980s.

Short-Run Trends.

The economic indicators show overall growth in the last half of the 1990s. The population and nonfarm labor income growth rates between 1995 and 2000 were slightly less than those experienced between 1990 and 1995. Per capita income growth accelerated slightly during the last half of the decade, but this was about equal to the state figure and this region remained about four percent above the Montana average. The Central Land Office region ranked "in the middle of the pack" in terms of short-run economic performance, fourth out of six in terms of both population and nonfarm labor income growth.

Basic Industries.

Nonresident travel is one of the two largest (along with manufacturing) basic industries in this region in 2000. Included in this industry are the resort areas (such as Big Sky) and Yellowstone National Park gateway businesses in Gallatin County, as well as the convention and lodging facilities in the major cities of Helena and Great Falls. Overall, the nonresident travel industry in this region almost tripled between 1970 and 2000, despite a decade of stability on the 1980s.

This region's manufacturing industry is diverse, with no single sector dominating. The important components include wood products, food products (such as the pasta plant in Great Falls), and primary metals (including the recently closed refinery in East Helena). Much of the growth in manufacturing in the 1990s was due to the development of the "high tech" sector in the Bozeman area.

Mining experienced overall growth during the 1970 to 2000 period, but with considerable volatility. This growth in this industry was due to expansions (and contractions) in metal mining, oil and gas exploration, and nonmetallic mining. The boom and bust oil and gas exploration caused the peak in the early 1980s and the trough in 1990. Metal mining increased as new facilities were opened in the 1980s and early 1990s, with closures and

cutbacks at these facilities causing declines in the late 1990s. Metal mines include facilities such as the Golden Sunlight Mine in Jefferson County and the gold mine at Jardine in Park County. Examples of nonmetallic mining include the talc mines in Beaverhead County.

Agriculture was the largest basic industry as measured by labor income in 1970. Agricultural labor income decreased by almost two-thirds between 1970 and 2000. This probably overstates the actual decline in this industry because of the volatility in this industry.

The Southwest Land Office

Description.

The Southwest Land Office is located in Missoula. The persons in this office administer trust land in eight western Montana counties. The other major communities in the region are Butte and Anaconda.

The total 2000 population in this region was 190,162 persons, representing approximately 21.1 percent of the state total. Nonfarm labor income during 2000 was \$2.8 billion (2000 dollars), about 21.6 percent of the total for Montana. Per capita income in this region was \$22,109 (2000 dollars) in 2000, about 1.8 percent below the statewide figure.

Long-Term Trends.

Population. The Southwest Region experienced overall population growth between 1970 and 2000. The number of persons increased from 143,204 in 1970 to 162,511 in 1980, an average increase of 1.3 percent per year. Population declined slightly during the 1980s, decreasing at average rate of 0.1 percent per year. The trend reversed in the 1990s and the number of residents rose from 160,893 in 1990 to 190,162 in 2000, an annual average growth rate of 1.7 percent. The Southwest Region's population growth rates in the 1980s and 1990s were equal to or above the respective statewide averages; they were tied for third in the 1980s and second during the 1990s.

Per-capita Income. Per-capita income rose from \$13,529 (2000 dollars) in 1970 to \$22,109 (2000 dollars) in 2000. This growth was above the statewide average in the 1970s, but roughly equal to the Montana figure thereafter. Consequently, this region's per capita income rose from 91.8 percent to 95.8 percent of the state figure between 1970 and 1980, and remained in the 95.8 to 98.2 percent range for the next twenty years.

Nonfarm Labor Income. The overall economy of the Southwestern Region grew an average of 3.2 percent per year in the 1970s, declined an average of 0.2 percent per year in the 1980s, and then resumed its growth at a 3.7 percent average annual rate in the 1990s. Nonfarm labor income growth in this region was above the statewide figure for

most of the 1970-2000 period. It ranked third out of the six regions in the 1980s and was the fastest growing region in the 1990s.

Short-Run Trends.

The last half of the 1990s saw overall growth of the economic indicators, but some performed better than others. Population growth decelerated sharply. Between 1995 and 2000, the number of residents in the Southwest Region increased only 1.0 percent per year. Per capita income growth accelerated slightly during the last half of the decade, and per capita income increased a bit to 98.2 percent of the statewide average. Nonfarm labor income grew at about the same rate throughout the decade, with the 1995-2000 figure being 3.6 percent per year. The Southwestern Region was above average in terms of economic growth between 1995 and 2000, population growth was second out of six regions and nonfarm labor income growth was first.

Basic Industries.

Manufacturing is the largest basic industry in the Southwestern Region, with wood and paper products accounting for about two-thirds of the total in 2000. Wood products grew during the 1970s due to the overall strong U.S. market and increasing labor intensity of production; the 1980s saw decreases resulting from U.S. economic conditions, introduction of labor saving technologies, and the shift to smaller trees; and the 1990 decreases can all directly or indirectly be attributed to a decreased timber supply from federal land. Despite the overall decline in wood and paper products during the 1980s and 1990s, there were increases in certain components and/or areas, such as log home manufacturing in Ravalli County. Also contributing to the sizable decline in manufacturing between 1980 and 1990 was the shutdown of the Anaconda Company copper refinery in Deer Lodge County. There are also numerous small manufacturing companies in the Missoula area.

Transportation consists mostly of railroads and trucking. The declines in the 1980s were due to the demise of the Milwaukee Road and consolidations and reorganizations along the old NP Lowline (now Montana Rail Link), running through Missoula and Butte. A number of long distance trucking firms are located in Missoula, perhaps, because of the proximity to I-90, a major east-west Interstate. These firms grew rapidly during the 1980s and 1990s.

Silver Bow County is part of the Southwestern Region. The decline in mining shown in Table 4 portrays the protracted and painful demise of the Anaconda Company and successor operators of underground and surface operations in the Butte area.

The Eastern Land Office

Description.

The Eastern Land Office is located in Miles City. This land office administers trust land in nine counties in eastern and southeastern Montana. The other major communities in the region are Sidney and Glendive

Although large is physical area, the Eastern Land Office economy is the smallest of the six DNRC land office regions. There were 47,995 persons living in the Eastern Land Office region in 2000, representing approximately 5.3 percent of the state total. Nonfarm labor income during 2000 was \$614 Million (2000 dollars), about 4.7 percent of the total for Montana. Although farms and ranches are important to this region, the addition of agricultural labor does not significantly change the relative importance of the economy within the state. The average per capita income in this region was \$20,951 (2000 dollars) in 2000, about 93.0 percent of the statewide figure.

Long-Term Trends.

Population. The Eastern Region lost population between 1970 and 2000. An energy boom (see below) led to a short-term population increase from 51,302 in 1970 to 58,877 in 1980, an average growth of 1.0 percent per year. The trend then turned downward and the number of persons dropped to 51,400 in 1990 and then to 47,995 in 2000, representing average annual declines of 1.3 percent during the 1980s and 0.7 percent in the 1990s. Overall, the Eastern Region's rates of population decline in the 1980s and 1990s were the greatest among the land office regions.

Per-capita Income. Per-capita income rose from \$14,467(2000 dollars) in 1970 to \$20,951 (2000 dollars) in 2000. The growth after 1980 was less than the statewide average and this region's per capita income decreased about 10 percentage points relative to the Montana average by 2000.

Nonfarm Labor Income. The overall economy of the Eastern Region grew an average of 6.4 percent per year in the 1970s, due to the energy boom. Nonfarm labor income declined 3.2 percent per year in the 1980s and grew 0.8 percent per year in the 1990s. With the exception of the 1970s, nonfarm labor income growth in this region was much less than the statewide figure, and it ranked last of the six regions in the both the 1980s and the 1990s.

Short-Run Trends.

There were mixed signals in the economic trends during the last half of the 1990s. The population decline accelerated to 1.1 percent per year between 1995 and 2000. Per capita income growth accelerated slightly, and per capita income increased a bit to 93.0 percent of the statewide average. Nonfarm labor income growth decelerated to 0.5 percent per year during the 1995 to 2000 period. Population and nonfarm labor income growth in the Eastern Region were well below their respective statewide averages between 1995 and 2000, and both ranked last among the six regions.

Basic Industries.

Coal mining and oil and gas exploration are the two major energy industries in the region, and both are classified in mining. The coal boom occurred first, in the mid to late 1970s, followed by an oil and gas boom, from the late 1970s to mid 1980s. Mining labor income increased more than four-fold between 1970 and 1980s, and then roughly halved from 1980 to 1990 due mostly to the bust in oil and gas related activities. Mining labor income remained roughly constant during the 1990s, but oil and gas exploration (which by now constituted the largest component of mining) underwent considerable technological change.

Agriculture labor income has experienced a long-term decline. Labor income earned on farms and ranches decreased by roughly two-thirds between 1970 and 1980. There was a slight increase between 1980 and 1990, but it dropped by another one-third between 1990 and 2000.

Transportation consists mostly of railroads. Labor income increased from 1970 to 1980, due mostly to reorganizations along the “Low-line.” Railroad labor income declined sharply during the 1980s and rebounded again between 1990 and 2000. The growth in the 1990 may have been associated with facility upgrading and other aspects of increased coal hauling.

The Southern Land Office

The Southern Land Office is located in Billings. This district contains seven counties in south central Montana. The other communities in the region are Red Lodge and Hardin.

The 2000 population in this region was 168,992 persons, representing approximately 18.7 percent of the state total. Nonfarm labor income during 2000 was \$2.8 billion (2000 dollars), about 21.5 percent of the total for Montana. The average per capita income in this region was \$24,405 (2000 dollars) in 2000, about 8.4 percent above the statewide figure.

Long-Term Trends.

Population. The Southern Region experienced overall population growth between 1970 and 2000. The number of persons increased from 117,436 in 1970 to 142,056 in 1980, an average increase of 1.9 percent per year. The growth rate decelerated to 0.4 percent per year during the 1980s, and then accelerated to 1.4 percent per year in the 1990s. Overall, the Southern Region’s population growth rates throughout the 1970 to 2000 period were above the statewide average.

Per-capita Income. Per-capita income rose from \$15,344(2000 dollars) in 1970 to \$24,405 (2000 dollars) in 2000. This growth was above the statewide average in the 1970s and 1990s and this region’s per capita income remained six to eleven percent above the corresponding figure for Montana. The Southern Region had the highest per capita income among the six regions in 1990 and 2000.

Nonfarm Labor Income. The Central Region's economy grew an average of 5.5 percent per year in the 1970s, declined 0.4 percent per year in the 1980s, and then resumed its growth at an 3.3 percent average annual rate in the 1990s. Nonfarm labor income growth in this region was slightly above the statewide figure most of the entire 1970 to 1990 period. It ranked fourth out of the six regions in the 1980s and third in the 1990s.

Short-Run Trends.

The last half of the 1990s saw overall growth of the economic indicators, but some performed better than others. Population growth decelerated sharply. Between 1995 and 2000, the number of residents in the Southern Region increased only 0.8 percent per year. Per capita income growth accelerated slightly during the last half of the decade, and per capita income increased a bit to 8.4 percent above the statewide average. Nonfarm labor income grew at the same rate throughout the decade at 3.3 percent per year. The Southern Region was slightly above average in terms of economic growth between 1995 and 2000, population and nonfarm labor income growth were both third out of six regions.

Basic Industries.

Metal mining, coal mining, and oil and gas extraction are all significant components of mining in the Southern Region. Coal mining increased dramatically the mid 1970, and remained at roughly the same level during the 1980s and 1990s. Oil and gas exploration also began to increase in the 1970s, it reached a peak in the mid 1980s and subsequently declined, and then rebounded in the mid and late 1990s. A platinum-palladium mine in Stillwater County accounted for most of the growth in metal mining. It opened in the late 1980s and then underwent a number of expansions in the late 1990s.

Manufacturing includes a wide variety of industries and is mostly centered in Yellowstone County. The largest single component of manufacturing is oil refining (about 36 percent of the total in 2000), and this industry experienced significant growth the late 1990s as the Billings refineries were modified and refitted. Other major components include food products (about 13 percent), printing and publishing (about 11 percent), and fabricated metal (about seven percent).

Agriculture labor income has experienced a long-term decline. Labor income earned on farms and ranches decreased by roughly three-fourths between 1970 and 1980. There was a recovery between 1980 and 1990, but it dropped by another one-half from 1990 to 2000.

The Northwestern Land Office

Description. The Northwestern Land Office is located in Kalispell. There are four counties in this region located in the far northwestern portion of Montana. The other major cities in this region are Libby, Columbia Falls, and Polson.

The total 2000 population in this region was 130,439 persons, representing approximately 14.4 percent of the state total. Nonfarm labor income during 2000 was \$1.7 billion (2000 dollars), about 12.8 percent of the total for Montana. The average per capita income in this region was \$20,732 (2000 dollars) in 2000, about 92.1 percent of the statewide figure and the second lowest of the six regions.

Long-Term Trends.

Population. The Northwest Region experienced strong population growth throughout the 1970-2000 period. The number of persons increased from 79,485 in 1970 to 97,653 in 1980, an average increase of 2.1 percent per year. Population growth decelerated slightly during the 1980s, growing at an average rate of 0.9 percent per year. Population growth accelerated again in the 1990s and the number of residents rose from 106,772 in 1990s to 130,439 in 2000, an annual average growth rate of 1.7 percent. The Northwest Region consistently ranked first in terms of population growth throughout the 1970 to 2000 period.

Per-capita Income. Per-capita income rose from \$13,100 (2000 dollars) in 1970 to \$20,732 (2000 dollars) in 2000. This growth was about equal to the statewide averages during the 1970-2000 period. Consequently, this region's per capita income remained below the Montana average, ranging from six to eleven percent below the statewide figure. The Northwest Region's per capita income consistently ranked lowest or next to lowest (fifth or sixth) among the DNRC regions.

Nonfarm Labor Income. The overall economy of the Northwestern Region grew an average of 3.4 percent per year in the 1970s, decelerated to 1.2 percent per year in the 1980s, and accelerated to a 3.3 percent average annual growth rate in the 1990s. Nonfarm labor income growth in this region was roughly equal to or greater than the statewide figures for during the 1980s and 1990s. It ranked first in the 1980s, and was one of only two regions to post a positive figure, and fourth in the 1990s.

Short-Run Trends.

The last half of the 1990s saw overall growth in the economic indicators, but some performed better than others. Population growth decelerated sharply. Between 1995 and 2000, the number of residents in the Northwest Region increased only 1.2 percent per year. Per capita income growth accelerated slightly during the last half of the decade, and per capita income inched upward to 92.1 percent of the average for Montana. Nonfarm labor income accelerated ever so slightly, with the 1995-2000 figure being 3.4 percent per year. The Northwest Region was above average in terms of economic growth between 1995 and 2000, population growth ranked first and nonfarm labor income ranked second among the six regions.

Basic Industries.

Manufacturing is the dominant basic industry in the Northwest Region. The wood products industry is the most important component, accounting for approximately 53 percent of the total in 2000. Among the other significant sectors are “high tech” (Semitoool) and primary metals refining (Columbia Falls Aluminum Company). The approximate stability of manufacturing during the 1990s is the next result of different trends in the components. The wood products industry reached at peak about 1994 and has declined since then. Primary metal was roughly stable or declining during the 1990s. “High Tech” grew rapidly during the latter portion of the decade.

Transportation consists mostly of railroads and trucking. The mainline of the BNSF railroad goes through the Northwest Region, and the company maintains a major facility at Whitefish. Railroad labor income has remained roughly stable through out the 1990s. The growth in transportation has been mostly in trucking. Some of this increase may be do to the reclassification of log truck from the wood products industry to transportation.

Nonresident travel is one of the three largest basic industries in this region. Flathead County serves as the major gateway to Glacier National Park. Overall, the nonresident travel industry in the Northwest Region more than tripled between 1970 and 2000, despite a fifteen percent decline in the 1980s.

References.

Polzin, Paul E., “Montana Avoids Recession and Terrorist Attack Impacts; The Montana Outlook,” *Montana Business Quarterly*, Vol. 41, No 1 (Spring 2003), pp 8-21.

Swanson, Larry D., “The Flathead’s Changing Economy,” Prepared for the National Parks Conservation Association, October 2002.
http://www.npca.org/across_the_nation/npca_in_the_field/northern_rockies/gateway/swanson.pdf

Table 5
Selected
Economic
Indicators
Eastern
Land
Office

							Annual Percent Change		
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	51,302	58,877	51,400	50,817	47,995	1.4	-1.3	-0.7	-1.1
Per Capita Income (2000\$)	14,467	19,155	18,465	18,848	20,951	2.8	-0.4	1.3	2.1
Percent of MT	98.2	103.9	93.7	92.5	93.0				
Nonfarm Labor Income (Thous. of 2000\$)	423,264	787,202	568,752	600,116	613,974	6.4	-3.2	0.8	0.5
Basic Industry Labor Income									
Agriculture	142,576	46,893	56,115	33,150	36,235	-10.5	1.8	-4.3	1.8
Ag. Serv. And Forestry	5,996	4,022	6,938	7,445	7,725	-3.9	5.6	1.1	0.7
Mining	28,931	132,609	59,569	57,552	56,167	16.4	-7.7	-0.6	-0.5
Manufacturing	17,504	17,129	16,133	19,901	18,018	-0.2	-0.6	1.1	-2.0
Transportation	42,878	68,522	41,760	45,117	49,353	4.8	-4.8	1.7	1.8
Nonresident Travel	10,708	18,009	7,915	11,896	9,829	5.3	-7.9	2.2	-3.7
Federal Gov't	26,841	41,732	43,695	44,612	40,832	4.5	0.5	-0.7	-1.8

Sources: U.S.Bureau of Economic
Analysis, Regional Economic
Information System. Institute for
Tourism and Recreation Research, The
University of Montana-Missoula.

14736.58 18433.21 19715.75 20386 22517.55

Table 7
Selected
Economic
Indicators
Northwes
t Land
Office

	1970	1980	1990	1995	2000	1970-80	1980-90	Annual Percent Change 1990-00	1995-00
Population	79,485	97,653	106,772	123,080	130,439	2.1	0.9	2.0	1.2
Per Capita Income (2000\$)	13,100	16,795	18,554	18,763	20,732	2.5	1.0	1.1	2.0
Percent of MT	88.9	91.1	94.1	92.0	92.1				
Nonfarm Labor Income (thous. of 2000\$)	765,602	1,068,923	1,204,892	1,412,535	1,672,155	3.4	1.2	3.3	3.4
Basic Industry Labor Income									
Agriculture	34,318	17,881	14,848	4,217	4,064	-6.3	-1.8	-12.2	-0.7
Ag. Serv. And Forestry	6,476	7,230	13,165	13,158	20,036	1.1	6.2	4.3	8.8
Mining	12,992	16,038	28,986	7,891	8,503	2.1	6.1	-11.5	1.5
Manufacturing	196,520	268,720	255,288	229,490	250,455	3.2	-0.5	-0.2	1.8
Transportation	42,955	58,056	56,202	53,383	59,689	3.1	-0.3	0.6	2.3
Nonresident Travel	16,851	40,589	34,149	40,964	61,509	9.2	-1.7	6.1	8.5
Federal Gov't	55,248	89,554	91,231	95,293	104,525	4.9	0.2	1.4	1.9

Sources: U.S.Bureau of Economic
Analysis, Regional Economic
Information System. Institute for
Tourism and Recreation Research, The
University of Montana-Missoula.

Table 1
Selected
Economic
Indicators
Montana

	1970	1980	1990	1995	2000	1970-80	Annual Percent Change 1980-90	1990-00	1995-00
Population	697,172	788,752	800,204	876,553	903,157	1.2	0.1	1.2	0.6
Per Capita Income (2000\$)	14,737	18,433	19,716	20,386	22,518	2.3	0.7	1.3	2.0
Nonfarm Labor Income (thous. of 2000\$)	6,751,252	9,920,093	9,620,853	11,230,117	13,052,804	3.9	-0.3	3.1	3.1
Basic Industry Labor Income									
Agriculture	1,093,173	288,781	553,007	361,607	320,429	-12.5	6.7	-5.3	-2.4
Ag. Serv. And Forestry	44,622	46,381	90,078	92,500	133,659	0.4	6.9	4.0	7.6
Mining	259,463	508,123	317,262	320,906	297,229	7.0	-4.6	-0.7	-1.5
Manufacturing	731,346	918,617	737,066	739,745	816,142	2.3	-2.2	1.0	2.0
Transportation	373,362	523,357	375,790	383,544	414,440	3.4	-3.3	1.0	1.6
Nonresident Travel	167,699	302,822	236,341	334,539	365,700	6.1	-2.4	4.5	1.8
Federal Gov't	704,455	858,034	934,191	963,430	1,047,387	2.0	0.9	1.2	1.7

Sources: U.S.Bureau of Economic
Analysis, Regional Economic
Information System. Institute for
Tourism and Recreation Research, The
University of Montana-Missoula.

Table 4
Selected
Economic
Indicators
Southwest
Land
Office

	1970	1980	1990	1995	2000	1970-80	Annual Percent Change 1980-90	1990-00	1995-00
Population	143,204	162,511	160,893	180,759	190,162	1.3	-0.1	1.7	1.0
Per Capita Income (2000\$)	13,529	17,655	19,152	19,960	22,109	2.7	0.8	1.4	2.1
Percent of MT	91.8	95.8	97.1	97.9	98.2				
Nonfarm Labor Income (thous. of 2000\$)	1,463,833	2,006,534	1,960,435	2,360,286	2,823,375	3.2	-0.2	3.7	3.6
Basic Industry Labor Income									
Agriculture	27,808	12,578	13,173	168	5,193	-7.6	0.5	-8.9	98.7
Ag. Serv. And Forestry	7,963	6,657	16,052	14,896	24,898	-1.8	9.2	4.5	10.8
Mining	160,476	111,560	42,163	55,805	25,372	-3.6	-9.3	-5.0	-14.6
Manufacturing	216,951	277,946	224,579	199,482	217,423	2.5	-2.1	-0.3	1.7
Transportation	87,114	106,579	94,152	111,728	116,256	2.0	-1.2	2.1	0.8
Nonresident Travel	31,873	53,419	34,829	58,188	48,244	5.3	-4.2	3.3	-3.7
Federal Gov't	110,659	150,722	141,860	147,061	173,118	3.1	-0.6	2.0	3.3

Sources: U.S.Bureau of Economic
Analysis, Regional Economic
Information System. Institute for
Tourism and Recreation Research, The
University of Montana-Missoula.

Table 3
Selected
Economic
Indicators
Central
Land
Office

	1970	1980	1990	1995	2000	1970-80	Annual Percent Change 1980-90	1990-00	1995-00
Population	214,890	238,074	250,584	275,944	285,863	1.0	0.5	1.3	0.7
Per Capita Income (2000\$)	15,468	19,049	20,424	21,200	23,351	2.1	0.7	1.3	2.0
Percent of MT	105.0	103.3	103.6	104.0	103.7				
Nonfarm Labor Income (thous. of 2000\$)	2,232,402	3,110,647	3,131,671	3,726,427	4,356,531	3.4	0.1	3.4	3.2
Basic Industry Labor Income									
Agriculture	329,474	98,344	206,293	139,077	105,790	-11.4	7.7	-6.5	-5.3
Ag. Serv. And Forestry	9,171	11,907	20,234	23,950	34,902	2.6	5.4	5.6	7.8
Mining	22,581	79,647	66,126	76,090	55,358	13.4	-1.8	-1.8	-6.2
Manufacturing	142,337	161,270	107,924	142,133	171,067	1.3	-3.9	4.7	3.8
Transportation	116,252	152,050	85,741	93,034	103,875	2.7	-5.6	1.9	2.2
Nonresident Travel	65,474	118,101	117,653	161,868	183,275	6.1	-0.0	4.5	2.5
Federal Gov't	367,549	406,083	452,003	456,238	482,758	1.0	1.1	0.7	1.1

Sources: U.S.Bureau of Economic
Analysis, Regional Economic
Information System. Institute for
Tourism and Recreation Research, The
University of Montana-Missoula.

Table 2
Selected
Economic
Indicators
Northeast
Land
Office

	1970	1980	1990	1995	2000	1970-80	Annual Percent Change 1980-90	1990-00	1995-00
Population	90,855	89,581	82,917	83,463	79,706	-0.1	-0.8	-0.4	-0.9
Per Capita Income (2000\$)	15,707	16,305	18,642	19,028	20,365	0.4	1.3	0.9	1.4
Percent of MT	106.6	88.5	94.6	93.3	90.4				
Nonfarm Labor Income (thous. of 2000\$)	635,569	845,835	735,902	743,815	780,866	2.9	-1.4	0.6	1.0
Basic Industry Labor Income									
Agriculture	395,819	72,354	199,634	151,084	138,525	-15.6	10.7	-3.6	-1.7
Ag. Serv. And Forestry	6,939	6,538	10,775	12,809	16,684	-0.6	5.1	4.5	5.4
Mining	6,329	39,595	35,221	22,007	11,993	20.1	-1.2	-10.2	-11.4
Manufacturing	30,524	23,089	23,140	15,786	14,741	-2.8	0.0	-4.4	-1.4
Transportation	56,069	90,548	67,490	53,171	54,291	4.9	-2.9	-2.2	0.4
Nonresident Travel	11,086	18,571	13,679	15,751	16,486	5.3	-3.0	1.9	0.9
Federal Gov't	64,207	58,218	64,078	65,328	71,079	-1.0	1.0	1.0	1.7

Sources: U.S.Bureau of Economic
Analysis, Regional Economic
Information System. Institute for
Tourism and Recreation Research, The
University of Montana-Missoula.

Table 6
Selected
Economic
Indicators
Southern
Land
Office

							Annual Percent Change		
	1970	1980	1990	1995	2000	1970-80	1980-90	1990-00	1995-00
Population	117,436	142,056	147,638	162,490	168,992	1.9	0.4	1.4	0.8
Per Capita Income (2000\$)	15,344	20,460	21,007	21,876	24,405	2.9	0.3	1.5	2.2
Percent of MT	104.1	111.0	106.5	107.3	108.4				
Nonfarm Labor Income (thous. of 2000\$)	1,230,581	2,100,952	2,019,201	2,386,938	2,805,903	5.5	-0.4	3.3	3.3
Basic Industry Labor Income									
Agriculture	163,177	40,730	62,943	33,911	30,621	-13.0	4.4	-7.0	-2.0
Ag. Serv. And Forestry	8,077	10,026	22,914	20,242	29,414	2.2	8.6	2.5	7.8
Mining	28,154	128,673	85,197	101,561	139,836	16.4	-4.0	5.1	6.6
Manufacturing	127,508	170,464	110,001	132,952	144,438	2.9	-4.3	2.8	1.7
Transportation	28,093	47,601	30,445	27,111	30,976	5.4	-4.4	0.2	2.7
Nonresident Travel	31,707	54,132	28,115	45,873	46,358	5.5	-6.3	5.1	0.2
Federal Gov't	79,951	111,726	141,324	154,898	175,075	3.4	2.4	2.2	2.5

Sources: U.S.Bureau of Economic
Analysis, Regional Economic
Information System. Institute for
Tourism and Recreation Research, The
University of Montana-Missoula.

	2000	2005	2010	2015	2020	2025
Helena						
TOTAL POPULATION	285.947	299.152	314.599	330.854	347.833	365.603
(THOUSANDS)						
nonfarm (2000\$)	4356.937	4874.543	5426.837	6031.102	6688.235	7400.337
PERSONAL INCOME (2000 \$)	6675.899	7492.185	8315.138	9226.090	10232.14	11342.61
PCY (2000\$)	23346.63	25044.74	26430.91	27885.68	29416.83	31024.39
Lewistown						
TOTAL POPULATION	79.729	78.045	77.427	77.038	76.827	76.759
(THOUSANDS)						
nonfarm (2000\$)	780.9301	841.0773	895.4571	955.1436	1021.023	1093.873
PERSONAL INCOME (2000 \$)	1623.319	1778.706	1887.169	2006.996	2139.766	2286.971
PCY (2000\$)	20360.46	22790.77	24373.53	26052.03	27851.75	29794.17
Miles City						
TOTAL POPULATION	48.009	47.284	47.287	47.434	47.647	47.952
(THOUSANDS)						
nonfarm (2000\$)	614.0315	691.2994	749.6756	810.4908	873.7881	939.6587
PERSONAL INCOME (2000 \$)	1005.657	1114.330	1195.929	1283.100	1376.427	1476.556
PCY (2000\$)	20947.26	23566.76	25290.86	27050.22	28888.02	30792.38
Missoula						
TOTAL POPULATION	190.216	201.85	216.04	230.708	245.88	261.605
(THOUSANDS)						
nonfarm (2000\$)	2823.635	3205.967	3625.740	4079.457	4575.769	5122.714
PERSONAL INCOME (2000 \$)	4204.704	4761.363	5428.979	6165.806	6980.874	7883.928
PCY (2000\$)	22104.89	23588.62	25129.51	26725.58	28391.38	30136.76
Billings						
TOTAL POPULATION	169.039	177.638	186.731	196.342	206.354	216.874
(THOUSANDS)						
nonfarm (2000\$)	2806.166	3110.595	3427.488	3775.578	4158.862	4582.347
PERSONAL INCOME (2000 \$)	4124.626	4581.461	5059.633	5589.857	6179.484	6837.376
PCY (2000\$)	24400.44	25791.00	27095.84	28470.00	29946.03	31526.95

	2000	2005	2010	2015	2020	2025
Kalispell						
TOTAL POPULATION	130.476	142.142	154.293	166.84	179.68	193.044
(THOUSANDS)						
nonfarm (2000\$)	1672.308	1928.284	2186.426	2462.842	2761.298	3085.053
PERSONAL INCOME (2000 \$)	2704.567	3119.866	3554.505	4030.761	4556.281	5138.890
PCY (2000\$)	20728.46	21948.94	23037.37	24159.44	25357.75	26620.30
Montana						
Pop	903.416	946.111	996.377	1049.216	1104.221	1161.837
nonfarm (2000\$)	13054.00	14651.76	16311.62	18114.61	20078.97	22223.98
PERSONAL INCOME (2000 \$)	20338.77	22847.91	25441.35	28302.61	31464.98	34966.33
PCY (2000\$)	22513.18	24149.29	25533.86	26975.01	28495.18	30095.73

Appendix C

GIS Data Report

Geographic Information Services and Consulting
assisting with geographic information systems analysis and support for:
Programmatic Environmental Impact Statement for
DNRC State Trust Land Special Uses Division

Prepared for DNRC State Trust Land Special Uses Division

**Prepared by Geodata Services, Inc.
104 South Ave. E.
Missoula MT 59801**

May 25 , 2004

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Introduction

This report details the geographic information system analysis and support for strategic planning associated with State Trust Lands. The GIS services involved data procurement, processing, analysis, and graphic support for DNRC staff and contracted researchers working on economic and social assessments of state trust lands. Geodata Services, Inc. developed GIS layers combining commercial and residential property with state trust land parcels and ancillary geospatial data in order to provide a foundation for assessing the relative potential of state trust lands to allow commercial, industrial, residential or other special uses. GIS analysis was also used by Dr Jackson in the financial analysis using a nearest neighbor approach, combining Montana Department of Revenue land appraisal values, with land use codes, residential housing density, development rates by decade, proximity measures to commercial and industrial properties. Individual properties were combined into aggregate summaries by county for acreage classifications of residential, commercial and industrial properties.

This appendix report is divided into the following sections:

1. Data sources and summary description
2. Methods and analysis procedures
3. GIS deliverables
4. Analysis results

Data Sources and Summary Description

Data sources

Geographic Information Systems (GIS) was used in this project to calculate geospatial variables for subsequent analysis and modeling of commercial and residential potential of state trust lands. Base layers include the following layers and sources and their accompanying summary description and synopsis of their use.

Montana cadastral ownership maps maintained by the Department of Administration.

This layer provided the base for all private residential land and commercial properties in Montana. It included coverage in every county, though some counties were still incomplete. The Information Services Division of the Montana Department of Administration provided Geodata with a statewide geodatabase of the parcel layer based on the July, 2003 status of the ownership parcels. The databases for this system are updated twice each year. This geodatabase with approximately 800,000 parcels was used for two portions of the analysis, measuring distances to residential, commercial and industrial properties from each DNRC trust land parcel, and calculating housing density, year built, within the neighboring areas around each trust land parcel.

The parcels included a geocode, which is an identification number intended to be unique for each parcel. The Department of Revenue Computer Assisted Mass Appraisal System (CAMA) included the residential and commercial property tax system. A centroid point was derived for each parcel and these points were overlaid on the land office polygons and each parcel assigned to a land office. The parcels and centroid points were linked to the residential CAMA database via the geocode identifier. A similar process was used to link the parcels to the commercial CAMA database for commercial and industrial parcels.

Digital Elevation Model

A statewide digital elevation model (DEM), with a 30 meter resolution was obtained from the Natural Resource Information System at the Montana State Library. To facilitate subsequent processing, the DEM was resampled to a resolution of 90 meters. A slope map, calculated in percent, was created from the resampled DEM. The slope map was also reclassified to identify slopes greater than 25% which were too steep for septic systems, forming a portion of the identification of developable areas. It was also used as a modifier in the floodplain surrogate buffer. The DEM was also used to derive a shaded relief grid, used as a backdrop for presentations and map graphics.

State Trust Land Parcels

The state trust land GIS layer used for this analysis was provided by DNRC GIS staff. Neither DNRC staff, nor Department of Revenue or Department of Administration staff had integrated state CAMA geocodes into the state trust land database or digital GIS file. In spite of these limitations, this GIS data layer was used as it was without additional modification as the base state trust land layer for this project, and without trying to match the parcels spatially to the cadastral GIS layer to match geocodes. The GCDB survey control that the state trust lands layer was based on was also updated. As a result of these considerations there were small anomalies and geographic slivers resulting from the overlays that we were forced to accept in the course of analysis. Overall, they had minimal impact on the outcome. Each DNRC trust land parcel was also used as the source for Thiessen polygon neighborhood delineation, which were the neighborhood polygons used in this analysis for variables measured at the neighborhood level.

Roads

Broad coverage of roads was available at a scale of 1:100,000 based on Census based Tiger files. The public domain files were available from the Montana state library. This project used the ESRI nationwide street database in ArcGIS StreetMap USA from Geographic Data Technology, Inc. (GDT) commercially enhanced street files, built on this Tiger base but enhanced with more recent development and more roads. This street database enhances TIGER 2000 source data and provides a nationwide base map for routing and drive time analysis. Although many small rural roads and forest roads are not on these layers, they include most paved county roads and generally represent the development potential for most areas. Roads were used in the

proximity analysis for potential development, and in the economic valuation nearest neighborhood analysis. The GDT roads layer is a proprietary commercial GIS layer.

Business Locations

ESRI Business Analyst software includes a national database of more than 12 million U.S. businesses from InfoUSA, which was used to supplement the Montana cadastral data and provide an alternative measure of commercial site proximity. These data include sites not available through the Montana commercial CAMA data. The CAMA data was based on property ownership, the InfoUSA was based on business address. Between these two commercial geospatial map layers, most commercial activity in Montana were mapped at a level of detail suitable for nearest neighbor analysis at a fine grained scale. The ESRI Business Analyst data also included shopping center data. The National Research Bureau tracked the following information on nearly 14,000 shopping centers with more than 100,000 square feet of gross leasable area (GLA) across the United States: alphabetical listing, center name, metropolitan statistical area (MSA), city, county, market positioning strategy, space availability, planned/proposed/new centers, expanding/renovating centers, major owner, leasing agent, and management. These were provided by point location based on address, and used in the proximity analysis. This database did not contain any shopping centers in the Eastern Land Office. They were also used to extract hospital locations, a key variables in the residential growth analysis. The InfoUSA and NRB GIS layers are a proprietary commercial GIS layers.

Airports

This data set includes airports in the United States, Puerto Rico and the U.S. Virgin Islands. The data were derived from an extract of the Public Use Airports database of the National Transportation Atlas Databases-2001 (NTAD-2001), published by the Bureau of Transportation Statistics, Department of Transportation. This map layer included airports in the 50 United States, Puerto Rico, and the U.S. Virgin Islands with enplanements greater than or equal to 250 passengers per year. There were 21 airports in the database in Montana, and all were used in the analysis.

Streams

The National Hydrography Dataset (NHD) is a comprehensive set of digital spatial data that contains information about surface water features such as lakes, ponds, streams, rivers, springs and wells. Within the NHD, surface water features are combined to form "reaches," which provide the framework for linking water-related data to the NHD surface water drainage network. These linkages enable the analysis and display of these water-related data in upstream and downstream order. The NHD is based upon the content of USGS Digital Line Graph (DLG) hydrography data integrated with reach-related information from the EPA Reach File Version 3 (RF3). The NHD supersedes DLG and RF3 by incorporating them, not by replacing them. Users of DLG or RF3 will find the National Hydrography Dataset both familiar and greatly expanded and refined. It was initially developed at a scale of 1:100,000. This stream layer was used for distance measurements.

Demographic Data

ESRI Business Analyst software contains over 300 demographic variables. This study used the household change between 1990 and 2000 and the predicted change between 2003 and 2008 as part of the analysis for potential residential growth and for the financial nearest neighbor analysis. The geographic units for this analysis was census block groups. The ESRI Business Analyst layer is a proprietary commercial GIS layer.

Public Land Ownership

The NRIS program at the Montana State Library maintains a 1:100,000 scale public land ownership and stewardship layer. This layer was used for distance measures to public lands and to extract state trust land areas under some form of conservation easement. This layer was not regularly maintained, it was not up to date everywhere in the state, and it did not include county and municipal lands. However, it was the best composite layer for public lands and was used as is with no further checks or modifications. The Montana Cadastral map layer and CAMA included public land ownership, but tended to lump all federal and state lands into single categories, so the parcel layer was not used in this study to identify public lands used in subsequent proximity analysis.

Floodplain

Another portion of the developable land base identification was based on floodplain areas, which were less likely to be developed. Digital versions of floodplain maps, developed and maintained by the Federal Emergency Management Agency were available for portions of 17 Montana counties, representing a small percentage of the total area. To simulate floodplains consistently throughout Montana a one-quarter mile buffer zones around all perennial streams (based on the National Hydrologic Data at a scale of 1:100,000) was weighted inversely by slope to create a variable width estimated floodplain that was narrower where slopes were steep.

Miscellaneous Layers

For general mapping and location reference, county, state, river, lakes, towns and cities were required. This project used layers provided by NRIS, typically at the 1:100,000 scale or smaller.

DNRC field offices and regions

Field office boundaries were acquired from DNRC GIS staff in digital form and used as is with no further modifications.

GIS Deliverables

The primary deliverable product for this contract was a GIS layer of state trust land parcels with accompanying database containing the attributes measured in this study and metadata and documentation on the map layers and analysis process. The DNRC land office boundaries layer is also included as a deliverable. This layer was provided by

DNRC and no changes were made to it. The following attributes were developed and included in the state trust land parcel database:

Distance and proximity

Distance measurements from state trust land parcels to variables related to residential growth

- Residential parcels with existing residences in the Montana cadastral property database (All residences /5 yr/10 yr)
- Commercial parcels in the Montana cadastral property database
- Industrial parcels in the Montana cadastral property database
- Commercial businesses in the InfoUSA database
- Shopping centers in the NRB shopping centers database
- Conservation easements
- Perennial streams
- Public land
- Roads
- Hospitals
- Airports with emplanements greater than or equal to 250 passengers per year

Acreage summaries of selected characteristics for each state trust land parcel

- Floodplain
- Slopes greater than 25%
- Developable area (slopes < 25% and not floodplain)
- Road access
- Contiguity to other state trust land parcels forming blocks of land larger than 1 square mile in size.
- Standard deviation of elevation
- Road density

Acreage summaries of selected characteristics for the neighborhoods surrounding each state trust land parcel (Thiessen polygons were used to define neighborhoods and are defined as the area that is closest to the parcel centroid relative to all other parcel centroids)

- Average value of the year residence built, year remodeled, effective year modifier, land value attributes, count of residences in neighborhood, housing density per acre were derived to aid Dr Jackson to fit a regression model. Land value attributes and the count of commercial and industrial parcels were also derived.
- Change in the number of households from 1990 to 2000 and the predicted annual change from 2003 to 2008

Summarization of quantiles

The values for the distance measurement variables and the neighborhood values were categorized into quantiles by each land office and assigned a high, medium, or low class value (High=>75%, Medium=50-75%, Low=<25%)

Residential Model Calculation

The residential model was calculated by summing the quantile values for the following attributes. Quantiles were calculated by each land office.

- Distance to the nearest residence
- Distance to the nearest residence built in the last five years
- Distance to the nearest perennial stream
- Distance to the nearest state or county road
- Distance to the nearest commercial business (by address)
- Distance to the nearest major shopping center
- Distance to the nearest commercial parcel
- Distance to the nearest hospital
- Distance to the nearest airport serving more than 250 passengers
- Number of residential parcels in the neighborhood
- Average road density in neighborhood
- Increase in households in neighborhood between 1990 and 2000
- Predicted increase in households in neighborhood between 2003 and 2008
- Standard deviation of elevation in neighborhood

Commercial/Industrial Model Calculation

The commercial/industrial model used the following components. Both commercial and industrial parcels were combined for this analysis. DNRC staff selected the final variables for the commercial/industrial models with GIS technical advice from Geodata Services. Unlike the residential model, which was run with each land office in isolation, the commercial/industrial model was run statewide for all trust land parcels. The longest measured distance required by the analysis was two miles, so the influence of an adjacent land office was not applicable. The model variables included:

- 1) All parcels within 2 miles of a major town (major towns were defined as those included on the Census 2000 layer from NRIS)
- 2) Within 1 mile of the 624 largest towns in Montana (from NRIS “Montana towns” GIS layer)
- 3) Intersection of areas within 1/4 mile of a major highway and within 1/4 mile of an existing commercial or industrial parcel from CAMA commercial property tax database
- 4) Results of steps 1-3 overlaid with slopes greater and less than 25%, and simulated floodplain to determine developable portions

The resulting grid map was processed with zonal statistics and summarized in the database for each trust land parcel. The deliverable layer for commercial included a selected subset of the trust land map layer that had at least 2 acres of commercial/industrial modeled land within it.

Data Attributes for State Trust Land Parcels

Table 1 Database attributes for state trust land parcels

Field Name	Description
AREA (sq meters)	
PERIMETER (meters)	
ACRES	
TWNRNGSEC	DNRC field
EMNT	DNRC field
SECTIONACR	DNRC field
SURFACEACR	DNRC field
SURFLEGAL	DNRC field
AREAOFFICE	DNRC field
UNITOFFICE	DNRC field
COMMENT	DNRC field
DATA_PRES	DNRC field
ACRE_DIF	DNRC field
SOURCE	DNRC field
EDIT_DATE	DNRC field
FORNONFOR	DNRC field
USGSFORNON	DNRC field
AUTO_ID	Unique id for each parcel
CO_NAME	County name - based on centroid point for parcel
Straight Line Distance Measurements (meters)	
D_res	Residences All – D(Dwelling) or M (Mobile)
D_res5	Residences Built in Last Five Years (2003-1998)
D_res10	Residences Built in Last Ten Years (2003-1993)
D_comm	Commercial All
D_ind	Industrial All
D_bus	Businesses All
D_shopctr	Shopping Centers All
D_cons	Conservation Easements All
D_pstream	Perennial Streams All
D_public	Public Land (DNRC parcels excepted)
D_roads	Roads All
D_Hosp	Hospitals All
D_Usgsair	Airports All
DNRC Parcels	
Floodplain	From NHD – perennial streams with ¼ mile buffer. Area in sq meters
Floodppct	Percent of parcel in floodplain
Slope	From 90 meter DEM – slope greater than 25%.

	Area in sq meters
Slopepct	Percent of parcel with slope greater than 25%
Develop	Area of parcel outside floodplain and less than 25% slope (“developable”). Area in sq meters.
Developpct	Percent of parcel outside floodplain and less than 25%
Rdaccess	1=Road Access / 0=No road access (with 100 meter buffer on roads) for developable portion of DNRC parcels
Contiguous	1=Contiguous / 0=Not Contiguous for DNRC parcels with shared perimeters with combined acreage greater than 660 acres
Elev_Stdev	Standard Deviation of elevation (from DEM)
Road_Densi	Density of linear features
Values from Thiessen polygons (neighborhoods)	
Av_yrblt	Average year residence built
Av_yrrmod	Average year residence remodelled
Av_yreff	Average effective year for residence
Av_totflv	Average Total Land Value for residence
Cnt_res	Count of parcels with a residence in each Thiessen polygon
Av_hd_acre	Average housing density/acre based on residence parcel size
Av_comland	Average Total Land Value for commercial parcels
Cnt_com	Count of commercial parcels in Thiessen polygon
Av_indland	Average Total Land Value for industrial parcels
Cnt_ind	Count of industrial parcels in Thiessen polygon
Dh9000	Household difference from 1990 to 2000
Dh0308	Household difference from 2003 to 2008
Dh9000a	Annual rate – household difference 1990 to 2000
Dh0308a	Annual rate – household difference 2003 to 2008
Quantile Values (calculated by each land office)	Low=<25%/Medium=25%-75%/High=>75%
Q_D_res	1=Low/2=Medium/3=High
Q_D_res5	1=Low/2=Medium/3=High
Q_D_res10	1=Low/2=Medium/3=High
Q_D_comm	1=Low/2=Medium/3=High
Q_D_ind	1=Low/2=Medium/3=High
Q_D_cons	1=Low/2=Medium/3=High

Q_D_pstrm	1=Low/2=Medium/3=High
Q_D_public	1=Low/2=Medium/3=High
Q_D_roads	1=Low/2=Medium/3=High
Q_D_bus	1=Low/2=Medium/3=High
Q_D_shop	1=Low/2=Medium/3=High
Q_Av_yrblt	1=Low/2=Medium/3=High
Q_Av_yrrmd	1=Low/2=Medium/3=High
Q_Av_yreff	1=Low/2=Medium/3=High
Q_Av_hdac (Avg Housing Density/Acre)	1=Low/2=Medium/3=High
Q_Av_r_val (Avg Total Land Value for Residence)	1=Low/2=Medium/3=High
Q_Av_c_val (Avg Total Land Value for Commercial)	1=Low/2=Medium/3=High
Q_Av_i_val (Avg Total Land Value for Industrial)	1=Low/2=Medium/3=High
Q_Dh9000	1=Low/2=Medium/3=High
Q_Dh0308	1=Low/2=Medium/3=High
Q_Dhosp	1=Low/2=Medium/3=High
Q_D_Usgsai	1=Low/2=Medium/3=High
Q_Elevstd	1=Low/2=Medium/3=High
Q_Rddens	1=Low/2=Medium/3=High
Q_Cnt_res	1=Low/2=Medium/3=High
Q_Fmodel	1=Low/2=Medium/3=High
Residential Land Model (calculated by each land office)	
Fin_Model	Q_D_res + Q_D_res5 + Q_D_pstrm + Q_D_roads + Q_D_bus + Q_D_shop + Q_D_comm + Q_D_hosp + Q_D_usgsai + Q_cnt_res + Q_rddens + Q_dh9000 + Q_dh0308 + Q_elevstd

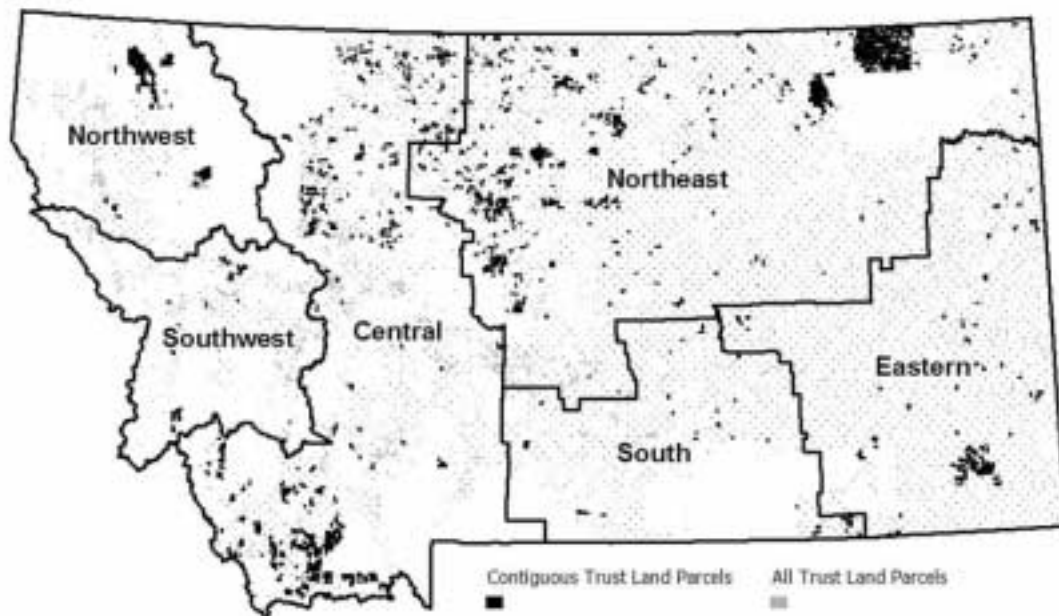
Methods and analysis procedures

State trust land contiguity

Initial methodology proposed using clusters of trust land parcels, such as the state forests, as the trust land parcel source for neighborhood analyses. Although these clusters of trust land parcels were not used as the unit of analysis in the final methodology, state trust land parcels that were in contiguous blocks were identified for future analysis by dissolving the polygon coverage and determining which resulting parcels were larger than 660 acres (640 acres plus 20 acres to account for section anomalies). Some special uses may be possible in these areas that are not possible elsewhere. Parcels that are contiguous only on one corner, i.e. checkerboard ownership, were not considered contiguous for this step. It also would be useful to examine state trust lands contiguous

to public land parcels. Some idea of contiguity was important, however, particularly in future site analysis following the programmatic GIS.

Figure 1 Contiguous trust land parcels larger than 1 sq mile



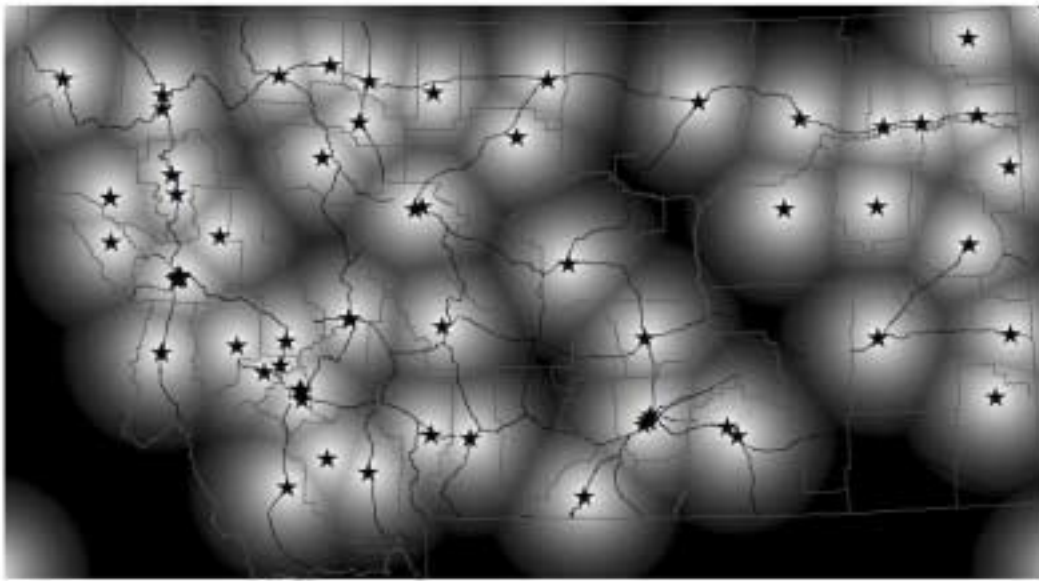
GIS analysis procedures were used to determine which state land parcels were contiguous to other state trust land parcels forming blocks of land larger than 1 square mile in size (See

Figure 1) . These contiguous parcels were carried in the GIS database but were not used in any acreage calculations or growth potential maps. All neighborhood analyses used individual trust land parcels ignoring any contiguity between parcels.

Distance and acreage measurements for each state trust land parcel

Initially, a unique identifier was assigned to each state trust land parcel. The original data set included 12,573 records, some represented multi-part shapes. Multi-part shapes were converted to single part, expanding the number of unique polygons to 13,693. Detailed GIS steps used in the analysis are included in the Federal Geographic Data Committee (FGDC) compatible metadata for the parcel layer. Distance to features was measured for multiple attributes. These measurements involved creating a proximity grid for each source layer and overlaying the DNRC parcel layer to assign the average distance to the selected feature. All of the distance measurements were Euclidian straight line distance. The figure below shows one examples of these proximity grids. For simulated floodplains, a component of the development determination, the distance was modified by slope to adjust for a narrower floodplain in steeper areas.

Figure 2 Euclidian distance to hospitals



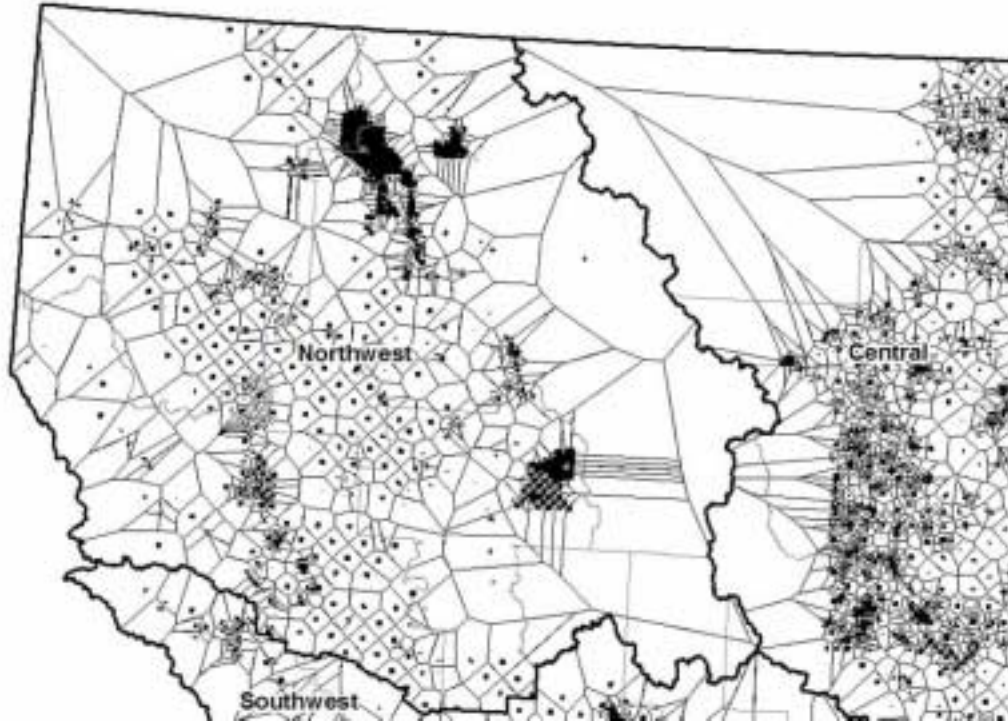
A series of proximity analysis was conducted on multiple data layers from public and commercial sources to contribute to an additive model distinguishing the relative potential for residential and commercial/industrial development for each trust land parcel. These analyses resulted in continuous surfaces to selected features stored as a series of ESRI Grids with 90 meter resolution covering the state of Montana. Zonal statistics were calculated for each distance grid and the resulting mean value posted to the state trust land parcel layer.

Neighborhood analysis for state trust lands

The neighborhood around each state trust land parcel was defined using Thiessen polygons. Thiessen proximal polygons have the unique property that each polygon contains only one input point, and any location within a polygon is closer to its associated point than to the point of any other polygon.

Analysis involving residences used the CAMA property indicator identifying which parcels had a residence or mobile home. The year the residence was built was also derived from the CAMA database to determine those built in the last five and ten year increments. The CAMA data is oriented around property tax purposes, unlike the census which is focused on population. The CAMA data only recorded the presence or absence of a residence and does not indicate the number of residences on a parcel if more than one existed. Commercial entities like apartments were listed in the commercial CAMA data, but the residential counts used in this study undercounted residences on parcels with multiple occurrences.

Figure 3 Thiessen polygons defining trust land parcel neighborhoods



Attributes measuring household differences between 1990 and 2003 and projected differences between 2003-2008 were calculated by extracting ESRI Business Analyst data by census block group with the growth rates assigned to each block group. These were converted to ESRI grid layers with 90 meter resolution cells, each assigned the growth rate for that census block group. The mean value of the growth rate grids were then calculated for each Thiessen polygon from these grids. This provided the basis to calculate an average rate of growth or decline in residential housing in the area around state trust land parcels in the recent past and predicted in the near future.

The cadastral parcels were also used as the unit of analysis for measurements provided to Dr Jackson as the basis for regression models on the economic predictions for residential development. In addition to the variables already described, parcels larger than 1 acre were identified and summarized by county and land office.

Figure 4 Regression models for economic predictions based on CAMA economic and growth variables



Subsequently, parcels greater than 1 acre and smaller than 25 acres were identified. The total final land value, total final building value and total cost value of the improvements for each parcel from the CAMA database and total count of parcels with a dwelling and residence from residential parcels were summed by county and land office.

Relative potential for residential development in areas near DNRC trust land parcels

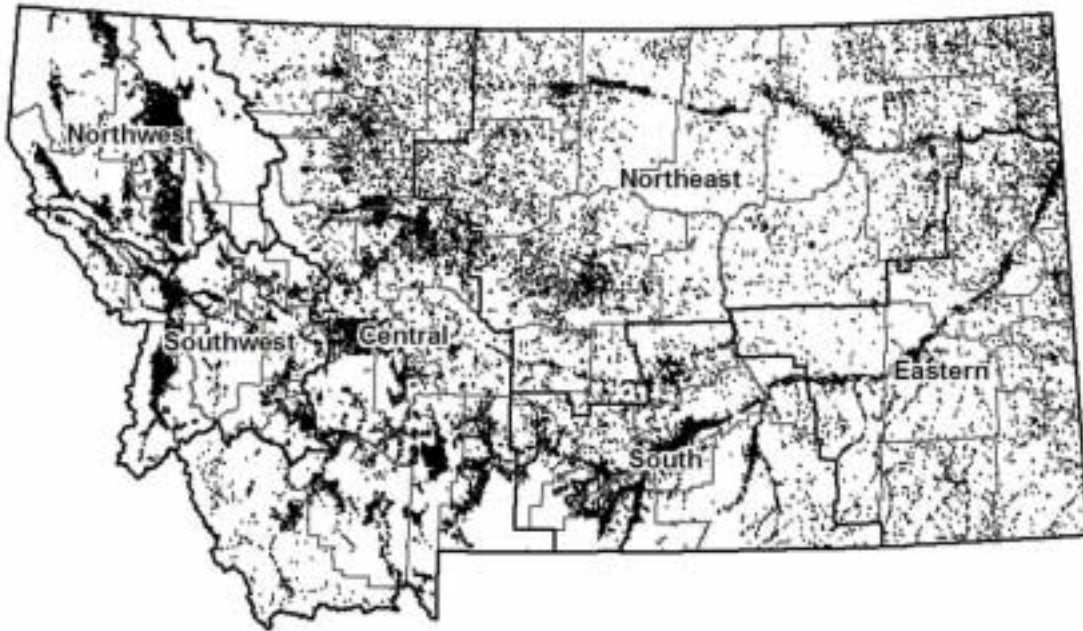
The variables used to summarize the likelihood of residential development were based on previous research and are the variables that are most highly correlated with development in previous studies. Quantile measurements were used to divide each variable into high, medium and low classes. The acreages were then summed for these classes. The simple additive model used to determine the final quantile class values were groupings of these quantile classes. A detailed statistical analysis of the descriptive geostatistical metrics derived in this project was not conducted. Building a suitability index created from a combination of statistical models (logistic regression, regression tree and cluster analysis) could be used to fit an equation to more accurately predict residential development or quantify the relationship of the variables to potential development. This type of analysis could be accomplished using the final data layer we created as part of the more detailed analysis required at the site level. For this analysis, the acreage summaries were tabulated on nominal and ordinal measurement scales, but the underlying data base attached to each state trust land parcel includes continuous variable measurements for future analysis.

The data provided in Table 3 shows the total acres of state trust land with higher potential to be developed in each DNRC land office. The definition of “higher potential” is a relative term. In this instance it is not the result of a statistical model, but is the lands in the highest class of all state trust lands, by each land office, split into four quantiles, grouped into three classes resulting from summing a series of covariate variables commonly agreed to be related to rural residential development. The data do not reflect or infer causation, they were summarized from variables that have been identified in rural residential development research in Montana as highly correlated. In some instances they may be responsible for growth, but in others they could result from the effects of growth. DNRC staff chose to analyze each land office individually, rather than on a statewide basis. For example, features outside of a land office were not measured even if they were closer to a state trust land parcel.

This project examined several studies of rural development and selected common variables from two local studies for this analysis. One was done in the Greater Yellowstone Ecosystem (GYE) (Hernandez, 2004), and the other in the Bitterroot Valley of Western Montana (Christensen, 2002). The primary reason were selected these two studies was the fine scale of geographic granularity of their analysis. The Hernandez study used 1 square mile sections of land and property tax data and the Christensen study used private land parcels and property tax data. Most other analysis of human settlement and growth patterns utilized coarser geographic data as the unit of analysis. These two studies occurred in areas experiencing the fastest growth in Montana and are likely not representative of all areas in the state, particularly the rural agricultural portions of the eastern and central portion. These two studies do reflect the high growth portions of the state which are ranked relatively more likely to experience future rural residential development.

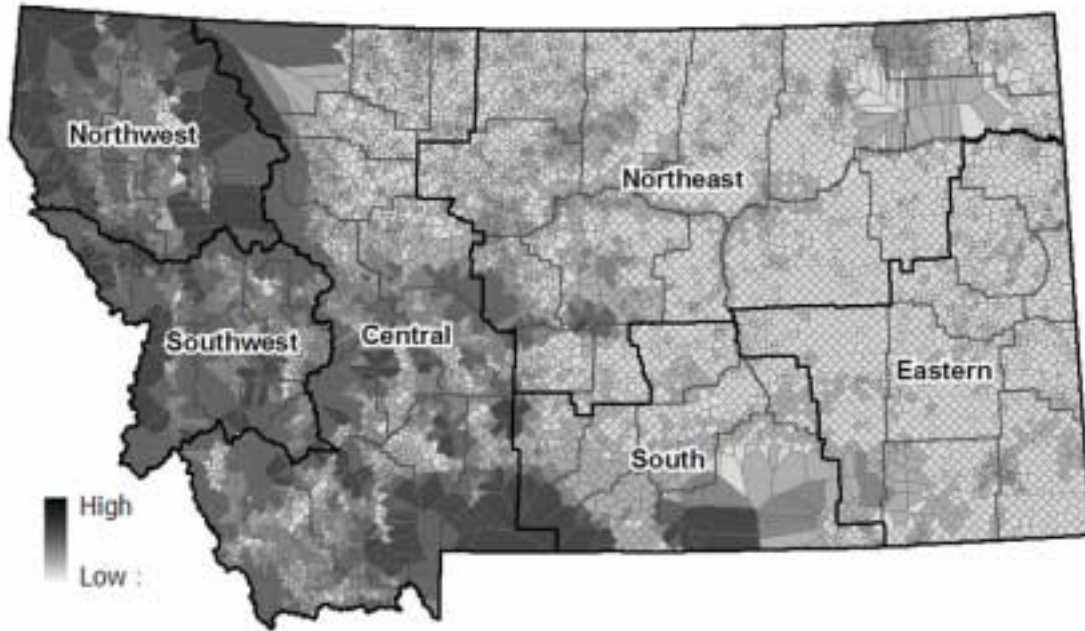
The sign or direction of the correlation was generally similar between the two studies for almost all variables. Only a few attributes had conflicting results. Those that were in conflict regarding the direction (positive or negative) of the relationship were not included in the summary results.

Figure 5 Housing density - each dot represents a parcel with a residence



Among the strongest correlation in both studies was existing density of development and encroachment, showing a positive correlation to future rural residential development. Variance in elevation was a significant variable in the Hernandez study, and in the Christensen study, they measured “viewshed” characteristics, including number of peaks in sight from each parcel. Transportation variables were strongly correlated in both studies, with road density a positive relationship, and a negative relationship for travel distance to town and distance to a state or county road. In the service class of variables in the Hernandez study driving distance to airports and hospitals were the most highly correlated negative relationship, and similar patterns were found in the Bitterroot with distance to schools, service businesses and all businesses .

Figure 6 Elevation variance positively correlated with residential growth



Distance to major streams, rivers and water bodies was negatively correlated with growth in both studies, there was less development farther away from perennial and intermittent water sources.

Figure 7 Services including airports and hospitals were important predictors of residential growth

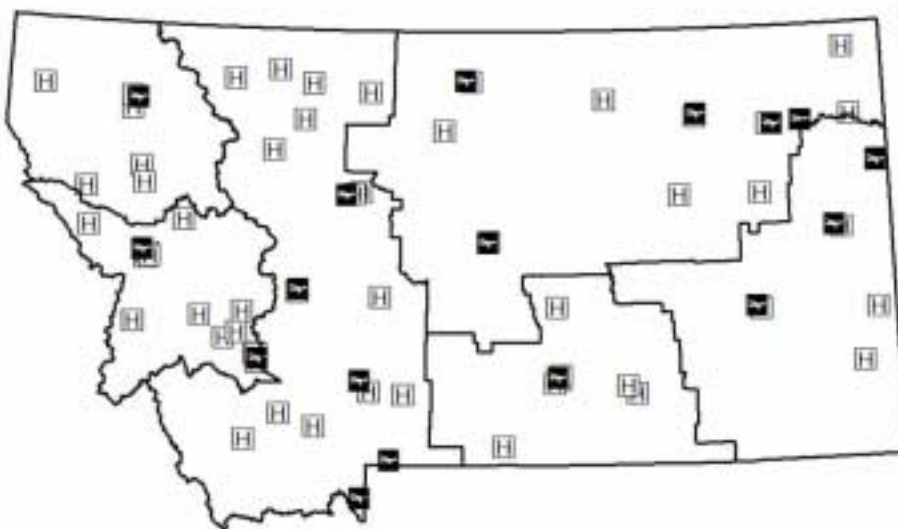


Figure 8 Household growth rates by census block group 1990-2000

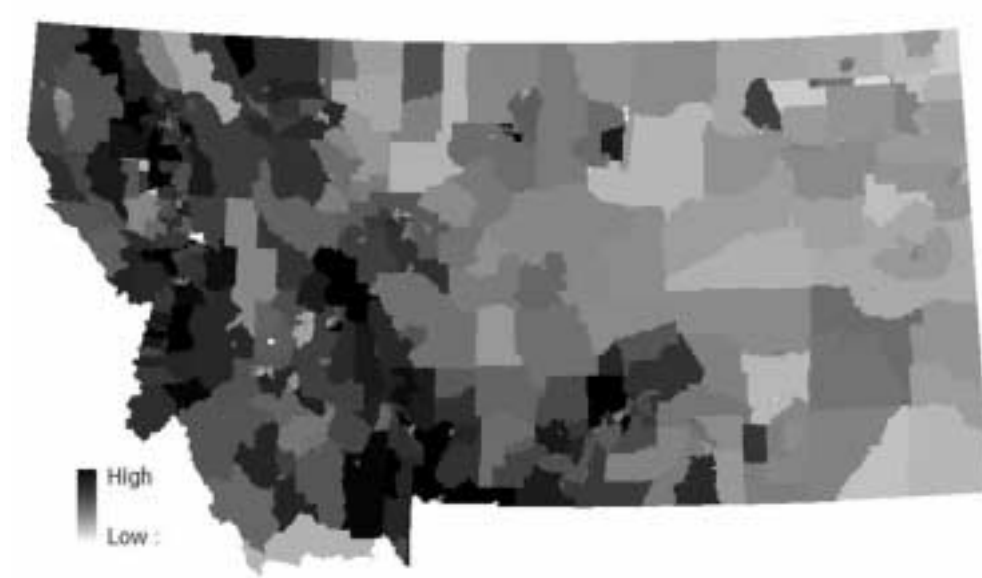
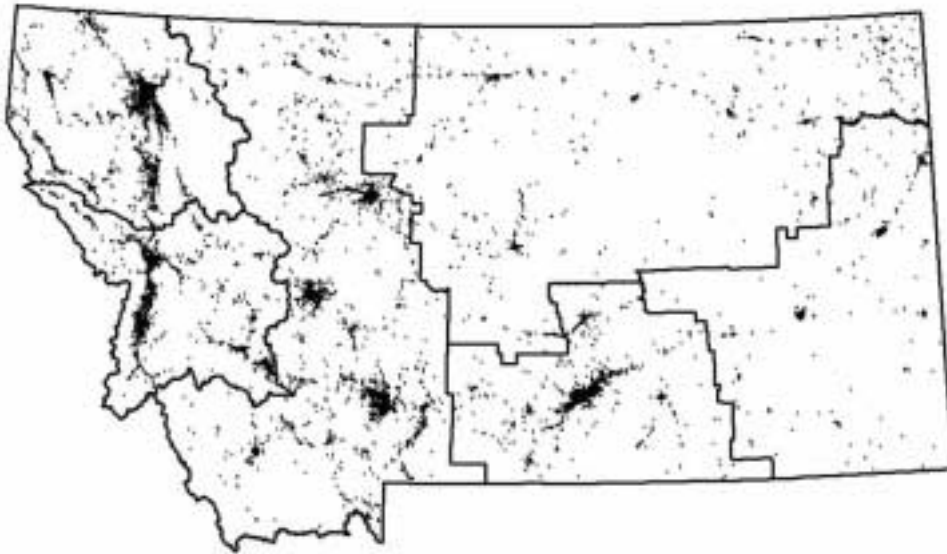


Figure 9 Road density per square mile



Figure 10 Commercial activity - each point is a Montana business



There were mixed results in the correlation of public lands and conservation easements to growth and development. In the Hernandez study near the GYE there was a strong negative relationship between rural residential growth and distance to National Parks (development decreased as distance from National Parks increased), but the relationship was positive for all public lands and conservation easements (area near towns that were further from public lands and easements tended to experience more growth). The Christensen study showed negative relationships for proximity to all categories of public lands and easements. The Hernandez study provides a possible explanation for their results attributing it to the vast difference in types of public lands. Due to these discrepancies, the proximity measures calculated for trust land parcels in the summed model for trust lands were not used. The Hernandez study examined a few variables that were not measured in the Christensen study, such as educational attainment and agricultural productivity that were strongly related to growth in the GYE area. These were not measured in the examination of state trust land parcels.

Using the two site specific Montana studies, the measurable attributes which best fit the residential growth models were selected. Acreages were calculated for the attributes, listed in Table 2 in italics, individually for the immediate neighborhood around each state trust parcel (defined by Thiessen polygons), or the distance measurement directly to the state trust land parcel, either based on metrics of total counts, average density, or proximity distance measurements, and classified each into three quantiles, by land office. High, medium, and low class values were assigned: High=>75%, Medium=25-75%, Low=<25%. Those variables that were negatively correlated were inverted to standardize the subsequent comparison in an additive model. As a result all variables were assigned a standardized quantile ranking based on the indication of likelihood of development.

Table 2 Attributes Included in the Model – All Were Classed into Quantiles

-Q_D_RES	Distance to nearest residence
-Q_D_RES5	Distance to nearest residence in neighborhood built in the last 5 years
-Q_D_PSTRM	Distance to nearest perennial stream
-Q_D_ROADS	Distance to nearest state or county road
-Q_D_BUS	Distance to nearest commercial business (by address)
-Q_D_SHOP	Distance to nearest major shopping center
-Q_D_COMM	Distance to nearest commercial parcel
-Q_D_HOSPITAL	Distance to nearest hospital
-Q_D_USGSAI	Distance to nearest airport serving more than 250 passengers
+Q_CNT_RES	Number of residential parcels in neighborhood
+Q_ROAD_DEN	Average road density in neighborhood
+Q_DH9000	Increase in households in neighborhood between 1990-2000 census
+Q_DH0308	Predicted increase in households in neighborhood between 2003-2008 (ESRIBis estimate)
+Q_ELEVSTD	Standard deviation of elevation in neighborhood

These rankings were then summed across all ordinal scaled variables and the results were again classified into four quantiles, and assigned into three classes using the same percentage classes (High=>75%, Medium=50-75%, Low=<25%) . The upper quantile of the composite highly likely parcels was then cross referenced against the acres potentially developable within that parcel and the resulting acres summed by land office to create the results in Table 3 and depicted in Figure 14.

Developable portions of DNRC parcels

In addition to the potential for residential development, the approximate acreage of trust land parcels likely to be developable was also calculated, subtracting out portions of parcels with physical constraints and classifying them as unlikely to be developed for residential purposes. As a practical rule of thumb, a slope limit and simulated floodplain was used to define these areas. The slope grid was reclassified into slopes more than and less than 25%, the cutoff for septic system regulations in Montana.

Figure 11 Trust land parcels less likely to be developed due to steep slopes or floodplain

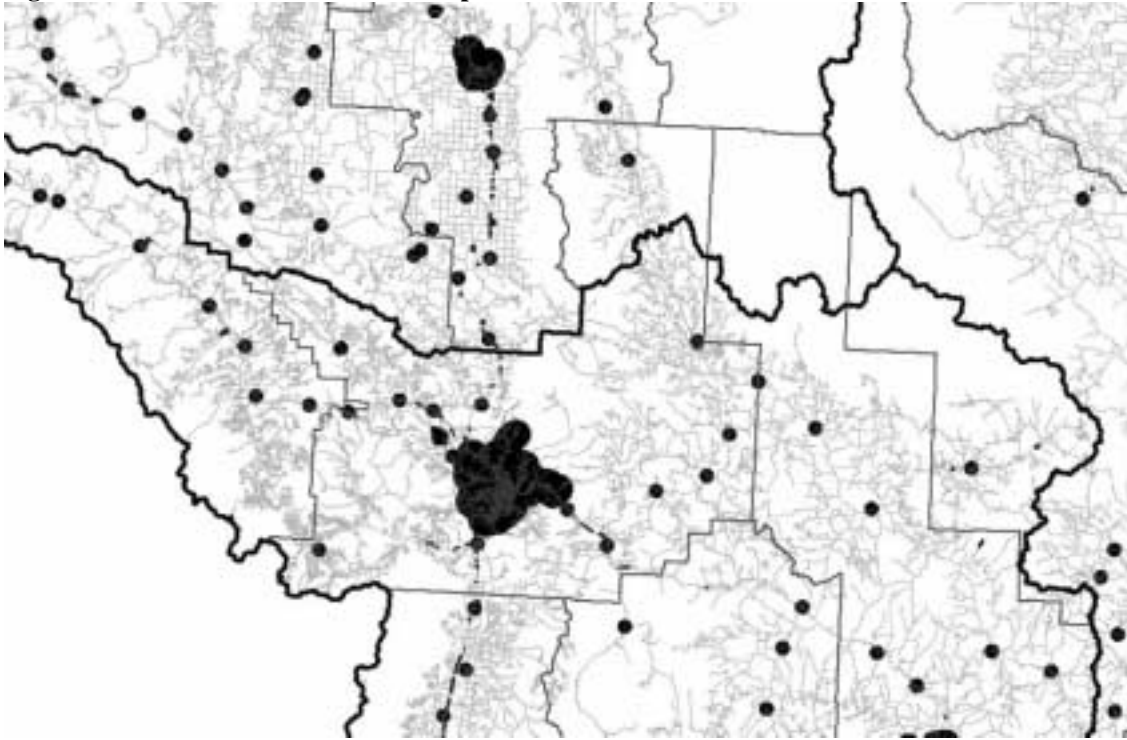


As described in the data section, floodplain was simulated using the perennial streams identified in the National Hydrologic data set mapped at a scale of 1 to 100,000. Buffers of ¼ mile were derived around these streams and modified with an inverse relationship by the slope grid, making the simulated floodplain buffer narrower where slopes were steeper. The union of these two analysis grids was then intersected with the DNRC parcels converted to a grid with the same cell size. The resulting grid, splitting the trust land parcels into two classes, developable and non-developable was then used to calculate acreages in each land office.

Relative potential for commercial and industrial development

No studies similar to the residential model research in the previous section were located for commercial and industrial development potential.

Figure 12 Commercial/Industrial development model

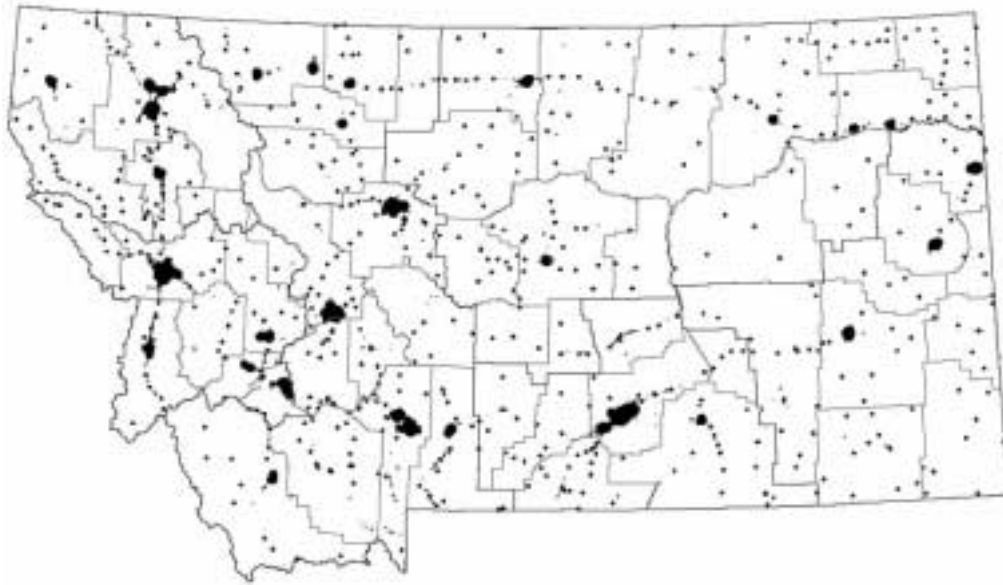


The model included the following components:

- 1) The Census 2000 layer from NRIS is a polygon layer of major cities in Montana derived from data from the Census Bureau. Some cities also have digital city boundaries and urban area maps, but variability in availability and standards for creation of the digital data precluded use of more detailed local data. A Euclidian distance grid was created based on the distance from the external boundary of the major city polygon layer. This was subsequently resampled to two classes, those within or outside a 2 mile buffer of a major town.
- 2) An identical analysis was run on areas within and outside a 1 mile buffer of the 624 largest towns in Montana (from NRIS "Montana towns" GIS layer).
- 3) Separate proximity distance grids were created for the areas within 1/4 mile of a major highway and within 1/4 mile of an existing commercial or industrial parcel from property tax database
- 4) The resulting four grids were summed, and all intersecting areas were kept in the model. The results were overlaid with developable lands, slopes greater and less than 25% and outside of simulated floodplain (the same map layer as the residential model was used) to determine developable portions of commercial and industrial parcels. The resulting statewide grid was overlaid on the land offices and the acreages of commercial/industrial lands were calculated for each land office. We also overlaid the results with all trust parcels and selected the subset of trust parcels that included at least 2 acres of commercial or industrial land in the model.

When the analysis was complete, final commercial/industrial grid was overlaid with the developable residential land to derive an overlap map. The acreage totals of this analysis were subtotalled by land office.

Figure 13 Commercial model - all areas in Montana



DNRC land office summarization

The analysis described in the previous sections was conducted on finer grained scaled data layers. The final step in the analysis was to summarize the data to the DNRC land office level suitable for the analysis in the programmatic GIS. The source data will have utility beyond the current analysis for subsequent site analysis in areas smaller than the land office administrative boundaries.

The parcel data was tabulated for each land office and summarized.

- Categorize values for each variable into three standard deviations and assign class values
- Summarize acreage of state trust land more and less likely to be developed for residential uses
- Summarize acreage of state trust lands more likely to be developed for commercial and industrial uses
- Acreage summarization within DNRC land office regions
- Prepare spreadsheet of data metrics for each state trust land parcel

Analysis Results

The results of the GIS analysis are included below. Figure 14 through Figure 16 State trust land parcels in lower quantile of residential development show the geographic distribution of each of the quantile categories.

Table 3 All Developable acres by land office

AREA OFFICE	QUANTILE	COUNT	TOTAL ACRES	DEVELOPABLE ACRES
CLO	3	680	228,261	167,773
CLO	2	2,059	629,700	506,089
CLO	1	1,242	403,704	327,880
CLO Subtotal		3,981	1,261,665	1,001,742
ELO	3	326	128,015	114,261
ELO	2	1,154	577,769	534,260
ELO	1	518	274,029	261,357
ELO Subtotal		1,998	979,813	909,878
NELO	3	997	317,478	284,097
NELO	2	2,877	1,079,331	995,784
NELO	1	1,601	617,661	573,225
NELO Subtotal		5,475	2,014,470	1,853,106
NWLO	3	139	42,158	28,268
NWLO	2	387	162,670	82,074
NWLO	1	256	111,357	42,516
NWLO Subtotal		782	316,184	152,858
SLO	3	157	62,799	53,959
SLO	2	435	218,197	195,160
SLO	1	253	111,969	105,726
SLO Subtotal		845	392,965	354,845
SWLO	3	121	37,199	19,027
SWLO	2	321	124,046	72,017
SWLO	1	170	75,259	51,333
SWLO Subtotal		612	236,504	142,377
TOTAL		13,693	5,201,601	4,414,806

Figure 14 State trust land parcels in upper quantile of residential development

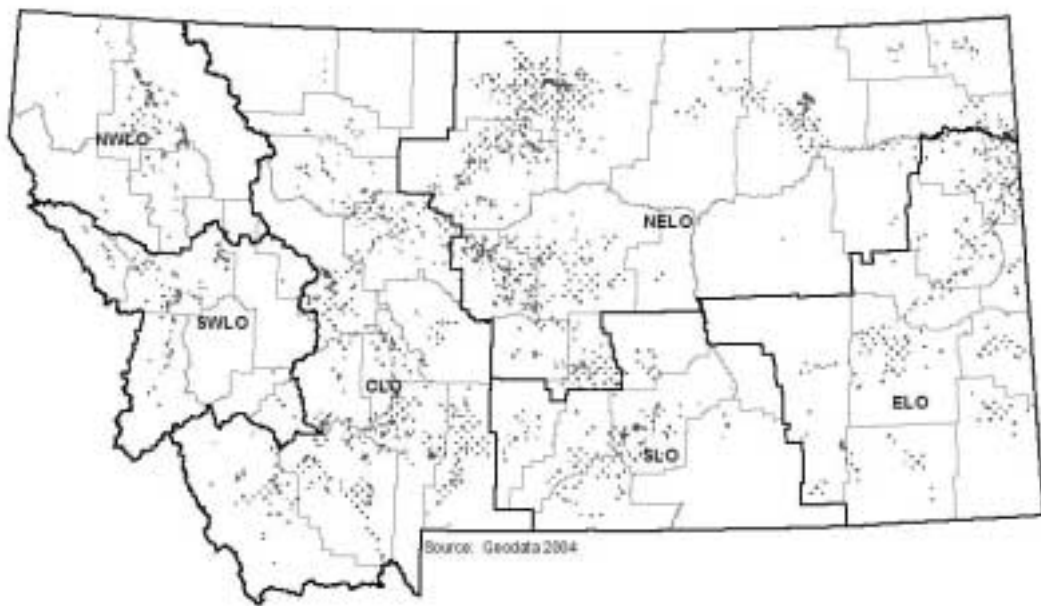


Figure 15 State trust land parcels in middle quantile of residential development

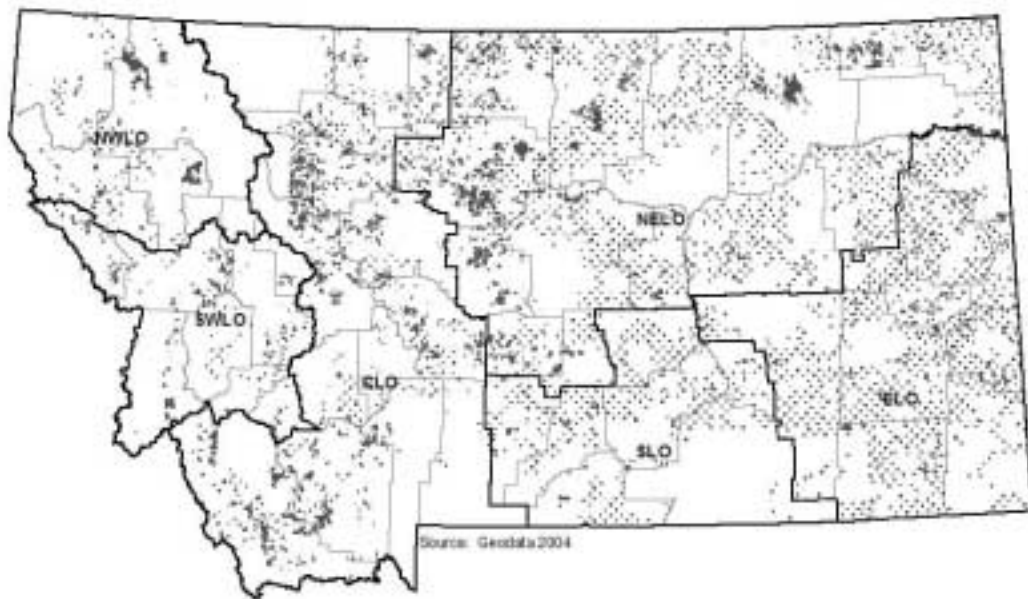


Figure 16 State trust land parcels in lower quantile of residential development

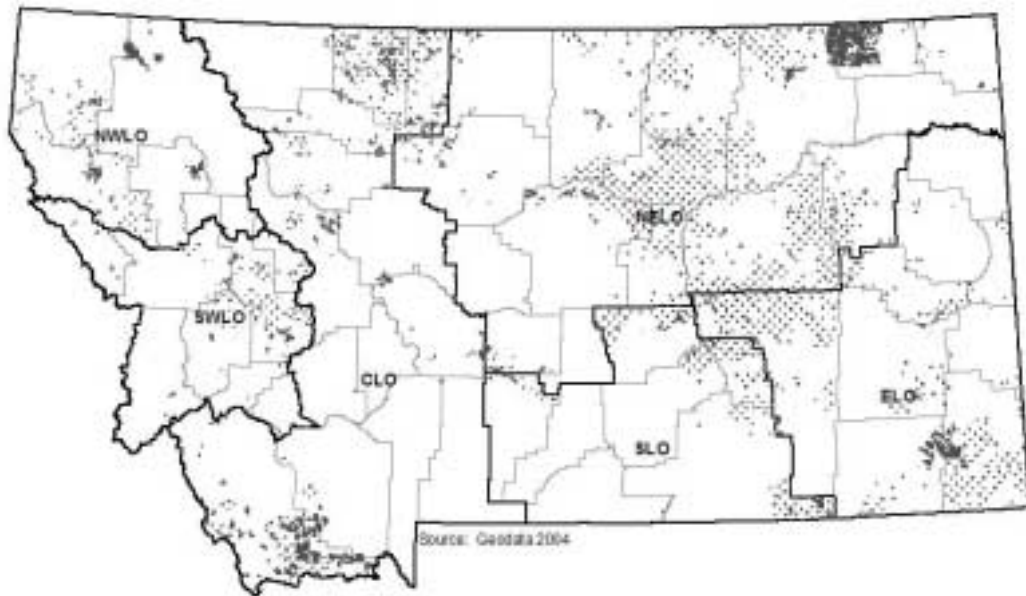


Table 4 shows all commercial/industrial potential land acreages by land office in two categories (developable and non-developable). Table 5 shows the portion of the commercial/industrial potential land acreages that fall within DNRC developable parcels, also by land office.

Table 4 Acreage of all commercial and industrial parcels developable and not developable

All Commercial & Industrial	Acres
SWLO Develop	307,622
SWLO Non develop	69,292
SLO Develop	292,668
SLO Non Develop	8,526
NWLO Develop	270,582
NWLO Non Develop	29,572
ELO Develop	244,220
ELO Non Develop	1,424
CLO Develop	663,688
CLO Non Develop	45,370
NELO Develop	395,630
NELO Non-Develop	4,572

Table 5 Developable acreage of commercial and industrial trust land parcels

DNRC Developable Commercial & Industrial	Acres
SWLO Develop	6,052
SLO Develop	9,104
NWLO Develop	6,940
ELO Develop	9,336
CLO Develop	16,330
NELO Develop	17,220

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Hernandez, P.A, and advisors Hansen, A.J., Rasker, R., Maxwell, B (2004) “Rates and Drivers of Rural Residential Development in the Greater Yellowstone”, Masters Thesis, Montana State University

Christensen, N. A., Landres, P. B. (2002). “Modeling residential development behavior in the urban/forest interface with the Bitterroot National Forest in Montana.” Book of Abstracts, 9th International Symposium on Society and Resource Management: Choices and Consequences – Natural Resources and Societal Decision-Making, June 2 –5, Indiana University, Bloomington.

Appendix D

Economic Analysis Appendix

Land Use Forecasts, Financial Returns and Economic Impacts

David H. Jackson

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Revised November, 2004

Introduction

This Appendix presents both the methods and results of the economic analysis. It includes forecasts of land use, and the expected value of land, investment analyses, and how EIS alternatives will impact returns to the school trusts as well as larger impacts on the Montana economy. The basic idea behind the forecasts is that land allocation is a function of income and population. In other words, the demand for land depends upon the population and income in an area. Land allocation is defined in terms of land uses and the three key uses being analyzed are industrial, commercial and residential uses. The residential uses examined are parcels between 1 and 25 acres in size. In the most general terms the amount of land allocated to each of these uses is seen as being a function of the population and income in the particular geographical area. However, there is some minor variation in this general approach to modeling. The analysis of these uses is broken into two subcomponents. First a model is developed that predicts the variation in the land use in each of Montana's fifty-six counties. The second part of the exercise involves coupling the predictive models with forecasts of income and population for the six state land office areas to forecast the change in land uses for the period through the year 2025.

Predicting and Forecasting Commercial and Industrial Land Uses and Values

The basic forecasts rely on combining the commercial and industrial land bases into one variable, the total commercial and industrial land in each county. After analyzing and forecasting this land category, changes in the ratio of commercial to industrial lands for each land office are discussed. Commercial and industrial uses are categories that are commonly used in land use planning and taxation in Montana. At times, it is hard to actually distinguish these uses from residential uses. For example, multifamily dwellings are taxed as commercial land uses in Montana.

The estimates of commercial and industrial land relied upon data provided by the Montana Department of Revenue property tax database for the year 2002. This data was summarized into acreage totals for each county. Model 1 below predicts the number of commercial/industrial acres in each county as a function of county income, (the product

of percapita personal income times county population), a “dummy (0,1) variable” (SMALLCTY) which has the value of 1 for counties with populations less than 2500 people and two interactive variables (CLOICINC and SWLICINC). One of these variables takes the value of county income for counties in the Central Land Office (CLOINC) and otherwise has the value of zero. Likewise the SWLICINC variable is the county income for each county in the Southwest Land Office and is zero for the other counties. The results of the model are summarized in Table 1.

Table 1
Predicting the Combined Commercial and Industrial Land Base
In Montana Counties

Dependent variable is BUSINAC Mean = 2726.75350, S.D. = 3374.6318

Model size: Observations = 56, Parameters = 5, Deg.Fr. = 51

Residuals: Sum of squares= 0.174058E+09 Std.Dev. = 1847.40470

Fit: R-squared = 0.72211, Adjusted R-squared = 0.70031

Model test: F[4, 51] = 33.13, Prob value = 0.00000

Results Corrected for heteroskedasticity

Breusch - Pagan chi-squared = 7.4591, with 4 degrees of freedom

Variable	Coefficient	Standard Error	t-ratio	p-value	Mean of X
Constant	1437.6	324.43	4.431	0.00005	
CLOICINC	-0.98555E-06	0.50651E-06	-1.946	0.05720	0.1197E+09
SWLICINC	0.10898E-05	0.32764E-06	3.326	0.00164	0.7651E+08
SMALLCTY	-1428.1	322.43	-4.429	0.00005	0.1250
CTYINCOM	0.40615E-05	0.19295E-06	21.049	0.00000	0.3699E+09

Based upon the calculated F statistic, the overall equation is significant. The adjusted R-square indicates that the model explains about 70 % of the variation in the number of acres of commercial and industrial land in each county. The industrial/commercial land base in each county is extremely variable. The range in industrial/commercial acres is 28 acres to 15,800 acres and the mean is 2726.7 acres per county. Each of the variables included in the model are statistically significant based upon two-tailed t-tests at an alpha level of .1. Since the forecasts of future land use are based on forecasts of population and percapita income in each county, the above equation is most useful in this regard. The forecasts developed by Polsin are for population and income at the land office level. Thus each county’s income and population can be grown

at the rate of the land office in which it is contained so that future levels of land use in each respective land office can be estimated.

The interactive variables indicate that, other things equal, there is less commercial/industrial land in central land office counties than other counties and more commercial/industrial land in southwestern land office counties than other counties. Again, however, counties within either Southwestern or Central Land office with high county personal income have greater commercial/industrial lands than those with lower county personal income.

The equation that predicts the value of combined commercial and industrial land in each county is found in table 2. The land value is again the assessed market land value for commercial and industrial lands and comes from the Department of Revenue 2003 property tax assessment.

Table 2
Predicting the Value of Commercial/Industrial Land Value per Acre
in Montana Counties

Dependent variable is COMICVAC Mean = 6014.75589, S.D. = 7612.2731
 Model size: Observations = 56, Parameters = 5, Deg.Fr. = 51
 Residuals: Sum of squares= 0.324219E+09 Std.Dev. = 2521.35714
 Fit: R-squared = 0.89827, Adjusted R-squared = 0.89029
 Model test: F[4, 51] = 112.58, Prob value = 0.00000
 Results Corrected for heteroskedasticity
 Breusch - Pagan chi-squared = 9.2440, with 4 degrees of freedom

Variable	Coefficient	Standard Error	t-ratio	p-value	Mean of X
PCAPY01	0.95906E-01	0.18106E-01	5.297	0.00000	0.2137E+05
CLOICINC	0.71971E-05	0.13642E-05	5.276	0.00000	0.1197E+09
NWLICINC	0.91733E-05	0.44337E-06	20.690	0.00000	0.4938E+08
SWLICINC	0.24281E-05	0.41572E-06	5.841	0.00000	0.7651E+08
POP2002	0.15471	0.59898E-02	25.829	0.00000	0.1624E+05

The model in Table two is again significant based on the calculated F-statistic. While there is high variation in the value per acre of combined commercial and industrial lands in each county (a range of \$178/acre to \$30154/acre) the model summarized in Table 2 explains 89 percent of this total variation. The explanatory variables again are significant at an alpha level of .1. They are essentially based on both income and population. PCAPY01 is the percapita income in each county in the year 2001.

POOP2002 is the county population in the year 2002. CLOICINC is the county income for each county in the Central Land Office. It has a value of zero for counties not in this land office. NWLICINC and SWLICINC respectively are calculated in the same way for counties in the Northwest and Southwest land offices. (County income is the product of population and percapita income). The coefficients for these variables indicate that other things equal, counties in these land offices have higher land values for commercial and industrial lands than for counties in other land offices. Forecasts at the land office level for future industrial/commercial land prices are based on forecasts of population and income developed by Polsin (2003).

The forecasts of industrial/commercial acreages and commercial/industrial land values were made in a spreadsheet. These are the steps involved in developing the forecasts. First, the Polsin forecasts of population, percapita personal income and county personal income were converted to compound rates of change for the forecasting period. Next these compound rates of change were used to forecast, population, percapita income and county income in each county. Next the acreage for each county was forecast into the future. These forecasts were then summed into a land office total. Compound rates of change were then calculated for each land office and applied to the actual base acreage and land office weighted land prices. These steps were done since the population itself was a cross section of counties and the forecasts and analysis were made at the land office level. Table 3 below contains the combined Commercial/Industrial land base forecasts for each land office.

Table 3
Forecasts for Total Commercial/Industrial Acres by DNRC Land Office

Land Off	Actual2003	Mid-Range	Forecast	Rural	Residence	2025
		2005	1 to 26 Acres 2010	2015	2020	
Clo	133970.6	135430	143754.4	151188.6	158820.4	166809.5
elo	11404.9	11346.62	11278.67	11275.88	11287.67	11360.55
nelo	19951.75	19879.04	19953.52	20083.09	20283.31	20519.63
nwlo	131900.8	133318.5	140876.2	147589.8	154287.7	161536.6
slo	52553.42	53182.99	56357.77	59280.7	62235.75	65405.95
swlo	104786.2	106289.8	115242.2	122679.6	130121.7	137646.3
	454567.7	459446.9	487462.7	512097.7	537036.6	563278.6

It is clear from the forecasts that there will be a substantial increase in the land associated with commercial and industrial land uses. There is considerably more commercial land use than industrial. In fact for every acre taxed as “industrial” in 2002, there was about 5.7 acres taxed as commercial. Keeping in mind that multifamily apartments and mixed commercial offices and residential buildings are included in the commercial land base, these uses are expected to grow in the future. It should also be apparent that from the origins of commercial and industrial land uses in Montana, commercial uses have grown relative to industrial uses. While the commercial and industrial lands are lumped together for purposes of forecasting, it may be useful to recognize that the commercial land uses are expected to grow relative to the industrial uses throughout the planning horizon.

The forecasts for Commercial/Industrial Land Value are presented in Table 4 below.

Table 4
Commercial and Industrial Land Value
By DNRC Land Office
Expressed in Constant 2003 Dollars Per Acre

Land Off	\$/ac 2003	\$/ac2010	\$/ac2015	\$/ac2020	\$/ac2025
clo	11674.81	13806.92	15332.96	17027.68	18909.71
elo	3911.467	4148.421	4303.753	4464.9	4632.082
nelo	2469.745	2583.756	2657.67	2733.698	2811.902
nwlo	19160.28	23613.86	26908.86	30663.63	34942.33
slo	13883.9	15563.6	16715.1	17951.81	19280.01
swlo	10401.86	12095.28	13290.97	14604.85	16048.62

The values come from the Department of Revenue assessed market values of commercial and industrial lands in each county. The land office averages were first developed on a county basis using steps similar to those discussed for the spreadsheet calculations of acre forecasts previously in this section. These prices were then weighted by the respective forecast acres in each county to derive averages for each land office. While these values are “bare land” values. They do represent the values of developed commercial and industrial sites. In order to get “raw land” commercial and industrial

values used in the financial analyses, the above forecast prices will be multiplied by a factor of 1/3.

Forecasting Land Use and the Value of Rural Residential Lands

Residential land uses in Montana occupy a vast range of landscapes and ownership sizes. Each farm or ranch typically has one or more home sites. At the other end of the spectrum are city and town lots with single-family residences. After considerable discussion with DNRC staff and based on their understanding of the spatial configuration of state trust lands, it was decided to focus the analysis on what is typically referred to as “rural residences”. From the standpoint of the Department of Revenue CAMA database, rural residences were defined for this analysis as private parcels with a single-family residence that were greater than one acre but less than or equal to 25 acres in size. The forecasts of growth in this particular land use and expected increases in value were limited to this segment of the land base because of the nature of the distribution of trust land parcels and their potential to be developed for this kind of land use.

Table 5 includes the statistical model that was developed to forecast the future land base devoted to rural residences. The calculate F-statistic reported in Table 5

Table 5
Predicting the Rural Residential Land Base
Properties 1 to 25 acres in size

Dependent variable is RRAC125 Mean = 7559.71347, S.D. = 11794.3848
Model size: Observations = 56, Parameters = 6, Deg.Fr. = 50
Residuals: Sum of squares= 0.212120E+10 Std.Dev. = 6513.36614
Fit: R-squared = 0.72275, Adjusted R-squared = 0.69503
Model test: F[5, 50] = 26.07, Prob value = 0.00000
Results Corrected for heteroskedasticity
Breusch - Pagan chi-squared = 69.2452, with 5 degrees of freedom

Variable	Coefficient	Standard Error	t-ratio	P-value	Mean of X
CLOPOP	0.37625	0.68420E-01	5.499	0.00000	5059.
ELOPOP	0.24959	0.33362E-01	7.481	0.00000	834.2
NELOPOP	0.22350	0.45057E-01	4.960	0.00001	1477.
NWLOPOP	0.66773	0.54733E-01	12.200	0.00000	2378.
SLOPOP	0.19236	0.10322E-01	18.636	0.00000	3061.
SWLOPOP	0.46447	0.13186	3.522	0.00092	3431.

indicates the equation is significant and the R-squared adjusted for degrees of freedom indicates that the seven independent variables explain about 73% of the variation in rural residential land base in the 56 counties. Acreage for rural residences from 1 through 25 acres is highly variable. The average number of acres per county in the 2003 Department of Revenue appraisal was 7,559.71/county among the 56 counties. One county had only 102.64 acres of rural residences while the county with the highest number of rural residences had 51,493.9 acres in rural residences.

The independent variables that explain the variation among the counties essentially combine county population with dummy variables for the various land offices. For example, CLOPOP is the result of multiplying the 0,1 dummy variable for the Central Land office counties times the population in the counties. The ELO and NELO are simply 0,1 variables for counties in the Eastern and Northeastern Land Offices respectively. Each independent variable is significant at an alpha test level of 0.1. Forecasts of population are used to forecast future acreages.¹

Table 6 contains consists of a summary of the model that predicts land value per acre in rural residences.

Table 6

Predicting the Value of Rural Residential Land In Montana Counties
Value per Acre Residences (> 1 acre and <= 25 acres)

Dependent variable is RRESVPAC Mean = 2734.61824, S.D. = 3070.9411

Model size: Observations = 56, Parameters = 7, Deg.Fr. = 49

Residuals: Sum of squares= 0.188014E+09 Std.Dev. = 1958.83324

Fit: R-squared = 0.63752, Adjusted R-squared = 0.59313

Model test: F[7, 48] = 14.36, Prob value = 0.00000

Results Corrected for heteroskedasticity

Breusch - Pagan chi-squared = 57.5047, with 6 degrees of freedom

Variable	Coefficient	Standard Error	t-ratio	P-value	Mean of X
CLO	2319.8	525.70	4.413	0.00006	-.25
ELO	497.93	122.89	4.052	0.00018	0.1607
NELO	489.07	128.23	3.814	0.0038	0.2679

¹ Income was not a significant predictor of residential uses and was dropped from the equations

NWLO	6076.1	2312.1	2.628	.01144	0.7143E-01
SWLO	1572.3	751.68	2.092	.04167	0.125
SLO	4047.9	792.76	5.106	0.00001	0.125
POP2002	0.49697E-01	0.15316E-01	3.245	0.00212	0.1624E+05

Land value per acre again came from the 2003 Department of Revenue property tax appraisals and the value per county is highly variable with a range of \$161.10/acre to \$14,769.61/acre. The model is significant (based on a calculated F of 24.36) and the independent variables explain 59.3% of the total variation. The population variable (POP2002) shifts land value for each county and the dummy variables for counties in each land office shifts the value of the counties in each respective land office. All of the independent variables are significant at the alpha level of .10. Forecasts of land rural residential land value rely on forecasts of population and utilize the coefficients for population and land office found in the above equation.

Table 7 contains the forecasts of future acreages in the rural residential land uses.

Table 7
Future Rural Residential Land Use
Parcels 1 through 25 acres in Size
By DNRC Land Office

landoff	Rural rrac03	Residential forecast rrac10	1 to 26 Ac total rrac15	rural1-25 rrac20	midrange rrac25
clo	133015.6	136667.8	143724.8	151150.9	158907.8
elo	12359.92	12189.87	12230.36	12327.93	12392.38
nelo	19951.75	19771.67	19833.14	19922.2	20049.72
nwlo	100677.2	115045.6	124401	133974.9	143939.5
slo	52553.42	56912.93	59842.22	62893.74	66100.08
swlo	104786.2	116219.4	124110	132271.9	140731.2
total	423344	456807.2	484141.6	512541.5	542120.6

It is clear from Table 7 that rural residential land uses involve a far greater land base than combined rural/industrial land uses reported in Table 3. It is also apparent that the land offices which have the highest rates of population growth are forecast to have the highest rate of rural residential land use growth.

Table 8 below contains the forecasts of land prices for rural residential lands in the six state land offices. These land values result from applying the population forecasts

to the land price model reported in Table 6 and then weighting the expected future prices by the expected acreages in the various counties to come up with weighed average expected future prices by land offices.

Table 8
Expected Future Prices of
Rural Residential Lands in DNRC Land Offices (2003 prices)

	2003	Rural 2010	Future Prices Residences 1 to 26 Ac 2015	\$/Acre 2020	2025
CLO	5006.88	5223.22	5373.237	5529.935	5693.934
ELO	914.3079	905.7535	903.7046	902.5932	902.2351
NELO	937.5223	933.4748	934.8563	936.8581	939.7245
NWLO	8742.646	9123.208	9370.997	9624.572	9888.496
SLO	6700.29	7125.676	7411.507	7709.263	8022.128
SWLO	7236.395	7584.29	7824.393	8072.745	8330.15

The land offices that have the highest rates of increase in population growth are forecast to experience the highest rates of growth in residential land prices. The Eastern Land Office is forecast to experience a slight drop in the real price of rural residential land and the Northeast Land Office is forecast to experience a very modest price increase. The Southern Land Office, Southwest Land Office and Northwest Land Offices are expected to experience the largest rates of increase in rural residential land prices over the planning horizon. It is also clear that the typical industrial/commercial parcel (Table 4) is worth considerably more than the typical rural residential parcel (Table 8).

Growth in Land Use

Tables 3 and 7 above show the total expected future land use for combined commercial/industrial and rural residential land uses for the midrange forecast. The following table (Table 9) shows the growth in land uses over the planning horizon. The mid-range growth forecasts are “periodic”. That means that each entry in the table show how much the land base is expected to change in the particular growth period. Only the mid-range growth forecasts are shown in the table. The analysis includes both a high bound and low bound forecasts which are based on these tables but include a plus/minus 25% range around the mid-range forecasts.

Table 9
Mid-Range, Periodic Growth in Rural Residential
And Commercial/Industrial Land Uses

	Periodic	All owner Growth	Rural Resid	1 thru 25 Acres Midrange	Total
Land off	2003-2010	2011-2015	2016-2020	2021-2025	
Clo	3652.26	7056.973	7426.109	7756.869	25892.21
Elo	-170.045	40.49225	97.56398	64.45461	32.466
Nelo	-180.074	61.46374	89.0597	127.5268	97.97592
Nwlo	14368.39	9355.426	9573.896	9964.606	43262.32
Slo	4359.506	2929.295	3051.514	3206.345	13546.66
Swlo	11433.17	7890.694	8161.822	8459.31	35945
Total	33463.21	27334.34	28399.96	29579.11	118776.6

	Periodic	All owners Growth			Total
Land Off	2002-2010	Commercial/ 2011-2015	Industrial 2016-2020	(Mid-range) 2021-2025	
CLO	5044.5734	3172.3282	3579.714602	3969.178073	15765.79429
ELO	425.72768	175.71355	206.3318014	225.7500579	1033.523083
ELO	425.72768	175.71355	206.3318014	225.7500579	1033.523083
NELO	1036.3267	820.19902	890.82413	981.4201587	3728.770046
NWLO	3387.3173	2236.9846	2471.57472	2734.005999	10829.88267
SLO	3474.618	2299.9123	2579.665189	2877.551653	11231.74714
SWLO	4209.3636	2786.2536	3125.163289	3486.041067	13606.82153
TOTAL	17577.927	11491.391	12853.27373	14273.94701	56196.53875

Defining the DNRC Alternatives in terms of Land Base and Land Use Change.

EIS alternatives are based on the current role of DNRC ownership in the current land uses. At the present time, the DNRC has the following proportions of developable land in each of the land offices.

Central Land Office	8%
Eastern Land Office	8%
Northeastern Land Office	9%
Northwestern Land Office	10%
Southern Land Office	4%
Southwestern Land Office	7%

These percentages are fundamental to the definition of three of the EIS alternatives.

Alternative B is to develop trust land in proportion to the relative share of the ownership of developable land in each land office. Thus for example, DNRC would take 8% of the growth in residential/industrial and rural residential growth in the Central Land Office. Alternative C which is a more aggressive growth policy is one where the DNRC would double its proportionate share of growth and alternative C is one where the state would grow at half of its proportionate share. Thus, again using the Central Land Office as an example, the Central Land office would take 4% of the growth under Alternative A and 12% of the growth under alternative C. These are summarized in Table 12.

Table 12			
EIS Alternatives and DNRC Growth Shares			
	Alt A ½ Proportionate Share (Modest)	Alt B Proportionate Share	Alt C Double Proportionate Share (Aggressive)
<u>Land Office</u>			
Central Land Office	4%	8%	16%
Eastern Land Office	4%	8%	16%
Northeastern Land Office	4.5%	9%	18%
Northwestern Land Office	5%	10%	20%
Southern Land Office	2%	4%	8%
Southwestern Land Office	3.5%	7%	14%

Rates of Return on EIS Alternatives

The rates of return were calculated in a manner consistent with other rates of return calculations used by the Montana DNRC. They are rates of return on equity. In essence these calculations examine net income as a percentage of the capital value of assets rather than simply as the interest rate that equates the present value of a stream of benefits with a stream of costs. The formal calculation of the return on asset value is the net annual income divided by the asset value. This is a very tedious calculation for a number of reasons. First, when conservation easements are sold, the proceeds are deposited into the school trust fund. This in turn is invested and yields annual earnings (95% of the earnings then are used to aid in school or other trust beneficiaries). However, only 5% of lease income is deposited in the trust fund, the rest is made

available to provide support for the schools or other trust beneficiaries. Of course, interest earnings reflect a premium for inflation.

After discussions with Paul Engelman, DNRC economist, the calculations for rates of return were done as follows. Equity is estimated by calculating the market value of the land developed over the planning horizon. Since this value reflects price changes as well as changes in yearly quantities, it was calculated by averaging the values in the first and second half of the planning horizon. Gross income is estimated by calculating the total gross income from the mix of leases and land sales over the planning period and then converting it to an average annual amount. The costs needed to convert gross annual income to net income are more problematic from the standpoint of rate of return calculations. This is the structure of annual costs developed by DNRC staff for the three alternatives.

Table 13
Cost Data

<u>EIS Alternative</u>	<u>Current Budget</u>	<u>Additional Budget per Alternative</u>
Alternative A	\$1,089,558	\$0.
Alternative B.1	\$1,089,558	\$193,960.
Alternative B.2	\$1,089,558	\$693,960.
Alternative C.1	\$1,089,558	\$255,160.
Alternative C.2	\$1,089,558	\$1,255,160.

Alternative A presents a unique problem in calculating rates of return. The income generated in Alternative A is positive while the extra costs of producing the income are 0. This arises because the DNRC will use its existing budget and staff to continue to develop land leases and sales as well as to service existing leases and operations. As a result, cost apportionment techniques are used that allocate the current budget between new income producing activities associated with EIS Alternative A and existing income producing activities. After calculating rates of return on equity based on this initial apportionment formula, an analysis is employed to see the extent that the ranking of alternatives is dependent on the apportionment method.

The initial approach to cost apportionment is use the estimated average income generated under Alternative A as a percentage of current income from real estate special use operations. The figure is 37%. Thus 37% of the current budget is used as a starting

point for calculating the cost of Alternative A. This figure (\$403,136) was added to the Additional budget items in the third column above to estimate a total cost of each EIS alternative.

In calculating rates of return, you should notice that there are alternatives noted as B.1 and B.2 as well as C.1 and C.2. The difference lies in the role the DNRC could play in actual development. These differences are noted as “with” or “without” up-front development costs. Currently the state has no money to do the permitting, and infrastructure (streets, utilities) development to create a developed lot. They sell or lease “raw” land. The alternatives with “up-front” development costs both have higher annual budgets and uniquely different income streams. The land leased or sold that is developed has a higher value, however there is a lagged period of time before the higher revenues are earned which reflect the value of developed versus raw land. A four-year lag was used in the calculation of these income streams with up-front development.

These other details are important to calculating the rates of return on equity.

- Rural Residential lease rates are 5% of full market value
- All land sales at full market value
- Raw land values are 1/3 of the value of commercial and residential lands which are developed
- Commercial/industrial lease rates range from 5% to 10%. A 7.5% figure was used in the analysis
- Conservation easement lease rates are 2.5% of the raw rural residential land value
- Conservation easement sales were 50% of the raw rural residential land value
- The mix of sales and leases for rural residential and commercial/industrial are as follows: 90% sales, 10% lease for rural residential and 90% lease, 10% sales for commercial/industrial

The planning team developed the following rates of conservation easement sales per year for each land office. They do not expect these to be a smooth rate of sales.

Table 13
Easement Sales

Alternative	CLO	ELO	NELO	NWLO	SLO	SWLO
A	173	28	209	34	6	16
B	313	57	308	59	20	35
C	422	66	410	77	32	53

In addition, they anticipate a new program of conservation easement *leases* under alternatives B and C as follows. Again these figures are expressed as annual equivalents but will likely be leased in more larger irregular amounts.

Table 14
Easement Leases

Alternative	CLO	ELO	NELO	NWLO	SLO	SWLO
A	0	0	0	0	0	0
B	47	0	0	98	12	57
C	94	0	0	197	25	94

The calculations yield the following estimated average annual rates of return on equity.

Table 16
Rate of Return on Equity For EIS Alternatives

EIS Alternative	Rate of Return on Equity*	Rate of Return on Equity
Current Situation	2.13%	2.13%
Alternative A	2.76%	2.76%
Alternative B.1	4.66%	4.73%
Alternative B.2	5.05%	5.13%
Alternative B-1	4.38%	4.46%
Alternative C.1	5.48%	5.55%
Alternative C.2	6.27%	6.35%
Alternative C-1	5.21%	5.14%

*The differences in the rates of return result from the consideration of extra conservation leases as described in the earlier in table 14

Table 17
Rate of Return on Equity For EIS Alternatives
With 50/50 Cost Share Between New Activities in Alternative A
and existing Activities

EIS Alternative	Rate of Return on Equity*	Rate of Return on Equity
Current Situation	2.13%	2.13%
Alternative A	3.87%	3.87%
Alternative B.1	4.10%	4.07%
Alternative B.2	4.50%	4.57%
Alternative B-1		
Alternative C.1	5.20%	5.28%
Alternative C.2	6.00%	6.07%

*The differences in the rates of return result from the consideration of extra conservation leases as described in the earlier in table 1

You will notice that the rates of return for each EIS alternative shown in Table 16 are greater than the rate shown for existing activities. From a standpoint of investment theory, Alternative C.2 is the preferred alternative. It has the highest rate of return and each alternative is preferred to the existing situation.

Table 17 shows the rates of return where the assumption regarding the allocation of the current budget between existing activities and those envisioned under alternative A is relaxed. The costs used to calculate the rates of return in Table 17 include 50% of the current budget shown in table 15. These costs (\$544,779) are added to the amounts in the additional costs item (column 3 in Table 15) in calculating the alternative rates of return on equity. Of course when costs increase, net income decreases as do rates of return on equity. However, the ranking of the EIS alternatives is not affected. The rates of return for alternatives B.1, B.2, B.3, and B.4 are all considerably greater than the rate of return for Alternative A. In addition, all are considerably greater than is the current situation.

Returns on the Trust Fund

As was discussed earlier, some of the income from these programs goes into the School Trust fund and some goes directly toward the support of schools and other state institutions supported in part with trust lands. Table 16 below summarizes these transactions estimated for the trust fund.

Table 18 School Trust Account Estimated Deposits and Earnings for the EIS Alternatives*		
	Average Annual Deposits	Average Annual Earnings
EIS Alternative A	\$811,143	\$664,342
EIS Alternative B	\$1,406,246	\$1,126,982
EIS Alternative C	\$2,580,376	\$2,153,621

* Deposits become a permanent part of the trust fund balance. A 5% interest rate was used to calculate the interest. Deposits and earnings were averaged over the planning horizon.

Economic Impacts-Local Jobs

The economic impacts envisioned in this report may be a bit different from those commonly estimated and reported in an EIS. The view here is rather simple. The growth

is going to occur. The sustentative issue is what role will state lands have in the growth and development of lands in Montana? The jobs, taxes and income reported in this and subsequent sections really represent the share of the total jobs, income and taxes that will be paid as a result of development in the state.

Table 19
Local First Year Jobs Associated with DNRC Development Share

Total	DNRC ALT B 2002-2010	Share 2011-2015	First Year 2016-2020	Jobs 2021-2025
CLO	362.4359	262.2084	292.4809	321.2814
ELO	30.43134	12.56014	14.74876	16.13679
NELO	83.33711	65.95701	71.63639	78.92175
NWLO	542.1261	390.8496	422.1247	458.9749
SLO	141.7889	97.00023	107.9502	119.6995
SWLO	309.9033	220.6768	243.211	267.2608

First Year	Impacts 2002-2010	Local Jobs 2011-2015	ALT A 2016-2020	2021-2025
CLO	181.218	131.1042	146.2404	160.6407
ELO	15.21567	6.28007	7.374378	8.068394
NELO	41.66855	32.97851	35.8182	39.46088
NWLO	271.0631	195.4248	211.0623	229.4874
SLO	70.89446	48.50012	53.97512	59.84977
SWLO	154.9516	110.3384	121.6055	133.6304

First Year	Impacts 2002-2010	Local Jobs 2011-2015	Alt C 2016-2020	2021-2025
CLO	716.6148	502.0808	561.4573	618.0114
ELO	60.86268	25.12028	29.49751	32.27358
NELO	166.6742	131.914	143.2728	157.8435
NWLO	1018.895	722.1229	783.2817	854.494
SLO	277.9327	188.69	210.3685	233.5864
SWLO	594.2625	416.6725	460.8928	508.0618

These employment impacts (along with the tax and income impacts reported in the next sections) are based on a study by Adair and Heath (2002), which estimated construction impacts for both single family and multiple family housing in a number of Montana housing markets. The multiple housing impacts were modified to address the impacts of

commercial/residential development. Much of the development on lands listed and taxed as “commercial” by the Montana Department of Revenue are apartment houses.

Income Impacts of the Alternatives

Reported next are the impacts or share of personal income associated with development and construction. Again these represent only the share of total personal income per EIS alternative so that if ,for example, the state share is 10% in a region, the figures in the table represent 10% of the total income.

Table 20
Share of Personal Income Associated with DNRC Development Share

Combine Local Income					
First Year	Local	Income	Alt B		
	2002-2010	2011-2015	2016-2020	2021-2025	
CLO	11312739	8184331	9129227	11560823	
ELO	1103781	455571.2	534954.9	585300.4	
NELO	3022736	2392339	2598337	2862586	
NWLO	18505157	13341423	14408978	19998887	
SLO	5730102	3920061	4362583	5307220	
SWLO	11712634	8340367	9192034	12101052	
Combined	Local	Income	Alt A		
	2002-2010	2011-2015	2016-2020	2021-2025	
CLO	5656369	4092166	4564614	5780411	
ELO	551890.4	227785.6	267477.4	292650.2	
NELO	1511368	1196170	1299168	1431293	
NWLO	9252579	6670712	7204489	9999443	
SLO	2865051	1960031	2181291	2653610	
SWLO	5856317	4170183	4596017	6050526	
First Year	Local	Income	Alt C		
	2002-2010	2011-2015	2016-2020	2021-2025	
CLO	22367751	15671486	17524810	21589002	
ELO	2207562	911142.3	1069910	1170601	
NELO	6045472	4784678	5196674	5725171	
NWLO	34779398	24649241	26736861	35665725	
SLO	11232067	7625513	8501602	10144626	
SWLO	22459844	15747920	17419203	22202036	

The local income is the direct result of construction and construction activities. It is the “first-year income” which means that it is a conservative estimate of the total income that

is associated with development. The above figures are yearly amounts. These are sustainable as long as the levels of construction are sustainable.

Tax Impacts and EIS Alternatives

The final impact included in the economic analysis is the impact of development on tax receipts. Of course, state lands are not taxed although improvements on leased state lands are. Thus, development of state lands can change the tax base in a variety of ways. The improvements on leased lands enter the tax base and the lands and improvements on lands that are sold to the private (taxed) sector enter the tax base. That complexity is a bit beyond this analysis so that these tax impacts are perhaps a bit lower than will occur since these are essentially based on the taxes (first year) that arise from the development of lands already in the tax base (perhaps in a lower valued and taxed use).

Table 21
Tax Impacts
DNRC Development Share

First Year	Impacts	Local Taxes		
	2002-2010	2011-2015	2016-2020	2021-2025
CLO	799531.9	502793.3	567361.4	629088.8
ELO	51578.55	21288.37	24997.89	27350.49
NELO	141249.3	111791.5	121417.6	133765.7
NWLO	875662.2	578287.4	638931.8	706773.4
SLO	268069.5	177440	199023.2	222005.3
SWLO	490499.3	324670.3	364162.1	406213.6

First Year	Impacts	Local Taxes		Alt A
	2002-2010	2011-2015	2016-2020	2021-2025
CLO	399766	251396.6	283680.7	314544.4
ELO	25789.27	10644.19	12498.95	13675.24
NELO	70624.67	55895.77	60708.81	66882.84
NWLO	437831.1	289143.7	319465.9	353386.7
SLO	134034.7	88720	99511.58	111002.7
SWLO	245249.7	162335.2	182081	203106.8

First Year	Impacts	Local Taxes		Alt C
	2002-2010	2011-2015	2016-2020	2021-2025
CLO	1599064	1005587	1134723	1258178
ELO	103157.1	42576.74	49995.78	54700.98
NELO	282498.7	223583.1	242835.2	267531.4

NWLO	1751324	1156575	1277864	1413547
SLO	536138.9	354880	398046.3	444010.6
SWLO	980998.7	649340.7	728324.1	812427.2

Summary and Concluding Remarks

Forecasts for rates of land development in commercial/ residential uses as well as rural residential uses (acreages from 1 through 25 acres) have been made. In addition, prices have been estimated for these uses and future prices have been forecast. These are the essential parts of the plan and analysis. Based on these forecasts and various EIS alternatives developed by the DNRC staff, various measures of economic performance and impacts have been estimated. These clearly show that increases in development will add in generating income for current and future school children. Based on the economic analyses presented above, Alternative C is preferred to Alternative B and B is preferred to Alternative A.

Literature Cited

Adair, Ann L. and Cheryl Heath. 2002. The Economic Impact of Home Construction on Montana Counties. Center for Applied Economic Research. Montana State University-Billings.

Montana Department of Natural Resources and Conservation, Trust Land Management Division. "Report on Return on Asset Value by Trust and Land Office for State Trust Lands"-Fiscal Year 2003, 12/2003,

Appendix E

A COARSE FILTER PROCESS TO CLASSIFY LAND

A COARSE FILTER PROCESS TO CLASSIFY LAND

WHEN TO APPLY THIS PROCESS

Cursory Review Of Parcel. Most parcels can be categorically disregarded. Critical elements of property rights are fundamental in making the decision to evaluate a parcel. This knowledge is acquired through familiarity of the land and reclassification procedure.

Timber Sale Projects. This process will be a tool for land managers when determining what type of timber harvest activities are appropriate on lands that are prime/focused or transitional or undetermined for alternative uses.

Grazing or Agricultural Leases. Evaluate selected leases/licenses at the time of renewal. This process will help assist the field in making a recommendation to renew leases on lands that are prime/focused or transitional or undetermined for alternative uses.

Lands Within Special Improvement Districts. State land may fall within improvement districts. The City and or County may access an annual fee to satisfy paving, sewer or water bonds.

Land Exchange - Rate - Both Parties' Land.

Lease or Land Use License Request. Evaluate the state land an applicant includes within a lease or land use license application. This process will provide you information to accept and proceed or deny the application.

Development of a Short and Long Range Plan. Parcels evaluated will provide you with information necessary to develop goals and objectives for your land office.

Granting Easements. Using this process will provide direction regarding where easements should be located within state land.

The Area Manager will designate who is responsible for using this management tool. The Special Uses Bureau will provide support.

The classification process will not provide you with a "cookbook" approach to development and land management. It will provide you the necessary information to initiate development projects; set short- and long-term goals and objectives; and request funding and FTE.

INSTRUCTIONS FOR CLASSIFICATION

Step 1: Select state land to classify.

Step 2: Evaluate selected state land under the following scoring methodology.

1. Explanation of how to score and evaluate:
 - a) Multiply the rate times the weight for each category under legally permissible and physically possible.
 - b) The lower the score, the greater the potential the property has for development
 - c) The category and respective weight may not contribute to the overall score, but may be a key factor in developing or not developing a state section or parcel. For example, a contaminated/hazardous site would score a rating of 4 ($4 \times 18 = 72$), and the rest of the criteria results in a total score indicating a Tier I rating. The contamination may prohibit our development, making this parcel less attractive.
 - d) Utilize the comment section to support your rate factor. This information is helpful for permanent records.
2. With the above information, rate your parcel.
 - a) First rate the parcel under the Legally Permissible criteria. If the total score is less than or equal to 145, the parcel would be considered a prime/focused parcel. Proceed to B. If the score is higher and the factors indicate the parcel is transitional or undetermined property, document why on the form and recommend no action or consider further as a land exchange candidate.
 - b) Rate the parcel under the Physically Possible criteria. Scores less than or equal to 120 on scoring sheet indicate the parcel is considered a prime/focused parcel. If the score is higher and the factors indicate the parcel is transitional or undetermined property, document why on the form and recommend no action or consider further as a land exchange candidate. If the score is greater than 120, but the combined score is less than 265, proceed to Step 3 below. If the score exceeds 265, the parcel is transitional or undetermined property; document why on the form and recommend no action or consider further as a land exchange candidate.

On the following pages are examples of two parcels that were scored and evaluated with the criteria.

- Step 3: Evaluate the parcel under Other Factors to Consider. These factors will result in a positive, negative or no effect rating. Complete the comment section and score how these other factors influence the parcel you are rating. Offset the positives and negatives overall. If the negative factors overpower the previous evaluation, document no further action should be considered. If not, proceed to Step 4 as shown on flow chart.
- Step 4 Evaluate the parcel under Administrative/Internal Factors to Consider. Proceed as described in Step 3 above.
- Step 5: Area/Unit Office will use this information to develop a short- and long-range management plan and forward the recommendation to the appropriate Bureau.
- Step 6: Special Uses Bureau, in association with the Area Office, will schedule the parcel for development.

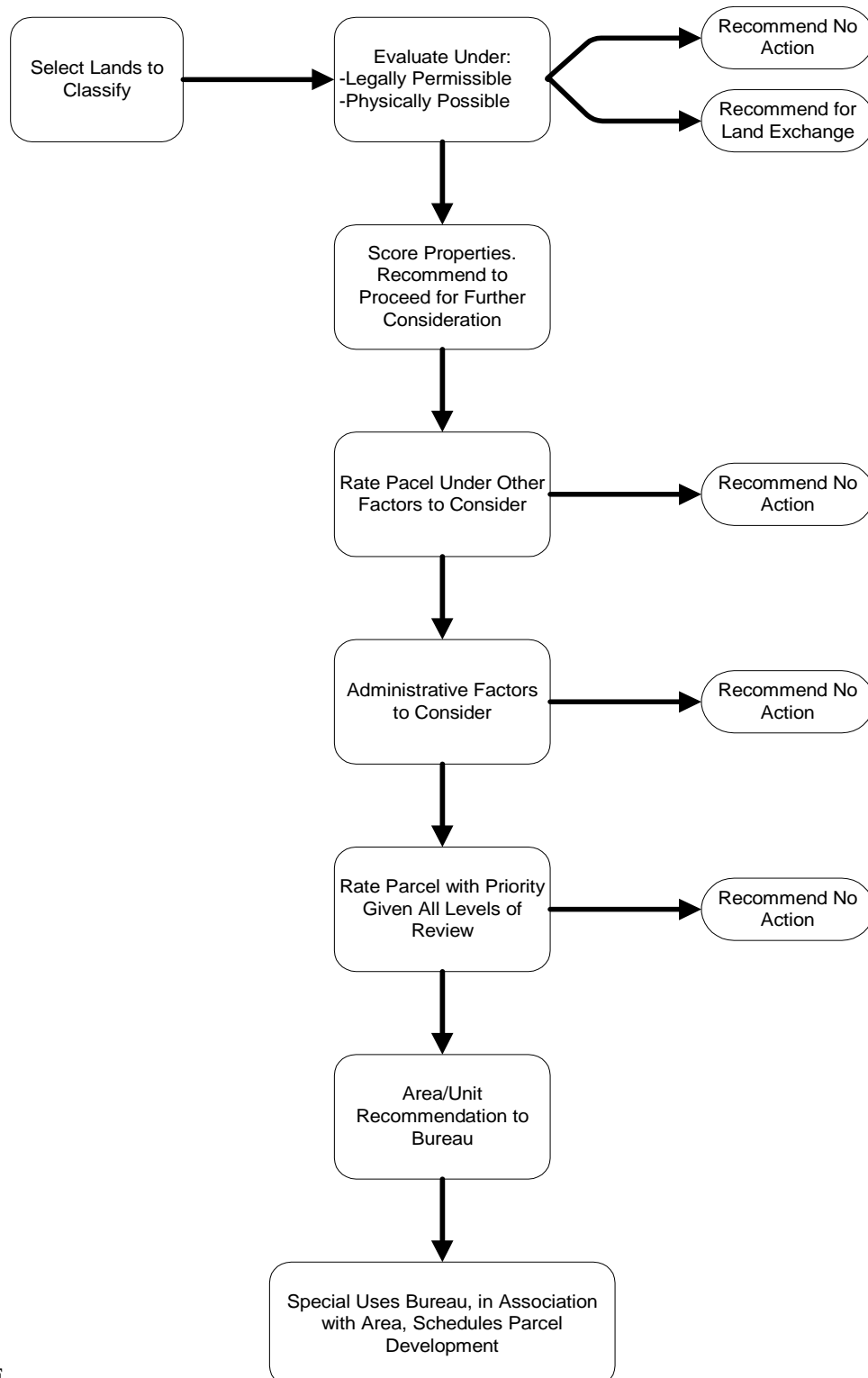
Definitions:

Tier I Prime/Focused Lands: Lands with short-term potential for development according to the classification guidelines.

Tier II Transitional/Undetermined Lands: Lands with long-term or no potential for development according to the classification guidelines.

(Forward Evaluations to Special Uses Bureau)

COARSE FILTER PROCESS FLOW CHART



STATE LAND

Legal _____ Section _____ Township _____ Range _____ Acres

NAME OF PREPARER: _____

DATE: _____

LEGALLY PERMISSIBLE				
CATEGORY	COMMENTS	RATING 1-4	WEIGHT	SCORE
Water Rights			14	
Access			11	
Environmental Laws/Regulations			7	
Zoning			7	
Leases			5	
Mineral Ownership			5	
Easement ROW			2	
TOTAL LEGALLY PERMISSIBLE				

Recommendations:

**LEGALLY PERMISSIBLE
Water Rights
(Optional Category--Dependent on Use)**

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
14	Water Rights	1-2	Subsurface water rights.
		3-4	Water rights exist for development permitted for aquifer.

Information available from Hydrologist/Water Rights Specialist, TLMD.
Well logs may be available for surrounding users.

**LEGALLY PERMISSIBLE
Access**

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
11	Access	1	Legal access for all purposes to property for development.
		2	No access within 1-5 miles. Cooperator & access is easily obtainable.
		3	No access.

Check county records, section record cards.

**LEGALLY PERMISSIBLE
Environmental Laws/Regulations**

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
7	Prime/Focused Lands	1-2	None impacting the property.
7	Transitional/Undetermined Lands	3-4	Environmental laws/regulations impact the property; i.e., threatened & endangered or sensitive species.

Need input from experts relative to the ability to map the impact of environmental laws and regulations.
MEPA analysis is considered under administrative factors that will impact the project.

**LEGALLY PERMISSIBLE
Zoning**

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
7	Zoning	1	Urban/rural use designated if appropriate for subject.
		2	Zoning undetermined. Not zoned, but planning office views favorable zoning.
		3	Development is not compatible with zoning, land use plans.

Contact county planning offices.
Will determine which zoning designations are desirable for mixed use development.

**LEGALLY PERMISSIBLE
Leases**

Surface lease exists that would impact development.

<u>Weight</u>		<u>Rating</u> <u>(1-4)</u>	<u>Factor</u>
5	Leases	1-2	No lease 1; lease not precluding alternative use 2.
		3-4	Leases may preclude alternative use.

Check STLMS.
How long till lease expires?

**LEGALLY PERMISSIBLE
Mineral Ownership**

<u>Weight</u>		<u>Rating</u> <u>(1-4)</u>	<u>Factor</u>
5	Mineral Ownership	1	State surface/State subsurface/no mineral leases.
		2	State surface/State subsurface/State mineral leases & mineral potential.
		3	State surface/private or Federal sub./No Fed. claims known.
		4	State surface/private or Federal sub./Fed. claims known & mineral potential.

Check STLMS & Minerals Bureau

**LEGALLY PERMISSIBLE
Encumbrances**

<u>Weight</u>		<u>Rating</u> <u>(1-4)</u>	<u>Factor</u>
2	Encumbrances	1	No easements issued within property.
		2-4	Easements issued within State property that may impact management.

Check with Lisa Axline and STLMS for information.

**TRANSITIONAL/UNDETERMINED LANDS
LEGALLY PERMISSIBLE**

<u>Weight</u>	<u>Criteria</u>	<u>Rating (1-4)</u>	<u>Factor</u>
14	Water Rights	3-4	Water rights do not exist.
11	Access	2-4	No access within 1-5 miles.
7	Environmental Laws/Regulations	3-4	None impacting the property.
7	Zoning	3-4	Rural use designated; zoning undetermined.
5	Leases	3-4	Leases may preclude alternative use (03 < or = 10 years).
5	Mineral Ownership	3-4	State surface/Federal sub./No Fed. claims known.
2	Easements/ROW	3-4	Easements/ROW limit development.

100

TOTAL SCORE: 237

*Scores less than 145 or equal to 145 are in Tier I.
Scores greater than 145 and less than or equal to 240 are in Tier II.

**PRIME/FOCUSED LANDS
LEGALLY PERMISSIBLE**

<u>Weight</u>	<u>Criteria</u>	<u>Rating (1-4)</u>	<u>Factor</u>
14	Water Rights	1	Water rights exist.
11	Access	1	Legal access to property.
7	Environmental Laws/Regulations	1	None impacting the property.
7	Zoning	1	Urban use designated.
5	Leases	1	No leases.
5	Mineral Ownership	1	State surface/State subsurface/no mineral leases.
2	Easements/ROW	1-2	No easement/ROW barriers exist. No limitations exist.
7	Threatened & Endangered Species	1-2	Bald eagle - grizzly bear.

100

TOTAL SCORE: 237

*Scores less than or equal to 145 are in Tier I.

**PHYSICALLY POSSIBLE
Infrastructure**

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
6	Roads	1	Paved or county gravel road--maintained.
		2	Private primary road.
		3	Secondary road.
		4	Spur or no road.
6	Sewer	1	Sewer developable.
		2	Septic developable--more than 5 units or 1 commercial.
		3	Less than 5 units or 1 commercial.
		4	Develop treatment plant; sewer 2-3 miles away.
6	Power	1	Power to site.
		1	Area typically developable without power.
	Note: Contact power company to determine rating if appropriate.	2	Power within 1 mile for commercial.
		3	Power within 1 mile for commercial.
		4	Power further than 1 mile.

**PHYSICALLY POSSIBLE
Contaminated/Hazardous Sites/Landfill**

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
9	Contamination	0	No contamination.
		1-2	Contamination affects site from surrounding land use, depending on degree of effect.
		4	Contamination on site.

**PHYSICALLY POSSIBLE
Water Availability**

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
18	Water Availability	1	Hook into city system or
		1	0-300 ft. well depth. Gallons per minute (GPM) req. necessary for type of development anticipated.
		2	Greater than 300, less than 1,000 ft. well depth. Marginal GPM.
		3	Greater than 1,000 ft. well depth. Good GPM.
		4	Greater than 1,000 ft. well depth.

Distance to account for the progression of urban growth.

**PHYSICALLY POSSIBLE
Geologic Features (Detriments)**

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
13	Geologic Features (Detriments)	1	Soil stable for the majority of the parcel.
		1	Not prone to slumping.
		2	Minor subsidence for the developable portion of the parcel.
		3-4	Slumps, high clay and some high water table for the majority of the parcel.

Soils maps available (NRCS).

**PHYSICALLY POSSIBLE
Lease Improvements**

Improvements would be impacted if parcel was developed or eliminated if developed.

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
11	Lease Improvements	1-2	No improvements - minimal improvements.
		3-4	Improvements exist - extensive, high cost improvements..

Check lease records.

**PHYSICALLY POSSIBLE
Floodplains
(0 pts. if not in floodplain)**

Majority of developable parcel.

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
11	Floodplains	1-2	Drainage plan exists.
		3-4	Floodplain and no drainage plan.

Check 50-100 year floodplain maps available from county.

**PHYSICALLY POSSIBLE
Topography**

Identify majority of parcel that is developable.

<u>Weight</u>		<u>Rating (1-4)</u>	<u>Factor</u>
11	Topography	1-2	All land has < 10%-25% slope line.
		3-4	Land = or > 25% slope line.

**TRANSITIONAL/UNDETERMINED LANDS
PHYSICALLY POSSIBLE**

<u>Weight</u>	<u>Criteria</u>	<u>Rating (1-4)</u>	<u>Factor</u>
9	Infrastructure	3-4	Sewer
9	Infrastructure	3-4	Power
18	Contaminated/Hazardous Sites	2-4	0-1.0 mile away from contamination.
18	Water Availability	3-4	2.1-5.0 miles away from water service area.
13	Geologic Features (Detriments)	1-2	No subsidence.
11	Improvements	2	Improvements exist.
11	Floodplains	2	Floodplain and no drainage plan.
11	Topography	3	Land = or > 25% slope line.

100

TOTAL SCORE: 234

*Scores greater than 120 are in Tier II.

**MIXED USE DEVELOPMENT
PRIME/FOCUSED LANDS
PHYSICALLY POSSIBLE**

<u>Weight</u>	<u>Criteria</u>	<u>Rating (1-4)</u>	<u>Factor</u>
18	Infrastructure	1-2	Water and sewer developable.
18	Contaminated/Hazardous Sites	1	No contamination.
18	Water Availability	1-2	Within water service area (CNN s). Developable well.
13	Geologic Features (Detriments)	1	No subsidence.
11	Improvements	1	No improvements.
11	Floodplains	1	Drainage plan exists.
11	Topography	1-2	All land has < 10%-25% slope line.
	Power, phone?		

100

TOTAL SCORE: 100

*Scores less than or equal to 120 are in Tier I;
scores greater than 120 are in Tier II.

STATE LAND

Legal _____

NAME OF PREPARER: _____ DATE: _____

Section _____ Township _____ Range _____ Acres _____

PHYSICALLY POSSIBLE				
CATEGORY	COMMENTS	RATING 1-4	WEIGHT	SCORE
Roads			6	
Sewer			6	
Power			6	
Contamination			9	
Water Availability			18	
Geologic Features/Detriments			13	
Improvements			11	
Flood Plains			11	
Topography			11	
TOTALLY PHYSICALLY POSSIBLE				
TOTAL LEGALLY PERMISSIBLE AND PHYSICALLY POSSIBLE				

Recommendations:

OTHER FACTORS TO CONSIDER

Rate as: + Positive
 - Negative
 0 No Impact

FACTORS	COMMENT	RATING
Distance to Urban Center		
Distance to National Parks, Wilderness and National Forests, BLM Land & BOR Land		
Other Amenities Such As Views, Creeks, Rivers, Lake		
Surrounding Land Uses		
Potential to Develop Conservation Leases for Development, Timber Wildlife and Esthetics		
Development Potential & Flexibility		
Existing RID s or SID s		
Potential RID s or SID s		
Unauthorized Uses on Parcel		
Supply and Demand for Development		

ADMINISTRATIVE FACTORS TO CONSIDER

Rate as: + Positive
- Negative
0 No Impact

FACTORS	COMMENT	RATING
Current Income		
Future Income Potential		
Management or Administration		
MEPA Review		
Political Considerations		

(Funding of the project will be considered in association with the Bureau and Area)

Overall Rating:

Recommendations:

APPENDIX F

SENSITIVE PLANT SPECIES OCCURRING ON STATE SCHOOL TRUST LANDS

TABLE
RARE VASCULAR PLANT SPECIES OCCURRING ON STATE SCHOOL TRUST LAND

NAME	Vegetation Province	HABITAT
<i>Allium columbiana</i> Columbia onion	Northern Rocky Mountains	Moist swales and along temporary ponds and streams in the valleys. 2800 - 3000 feet (853 - 914 meters)
<i>Amerorchis rotundifolia</i> round-leaved orchid	Northern Rocky Mountains	Spruce forest around seeps or along streams, often in soil derived from limestone. 3350 - 5920 feet (1021 - 1804 meters)
<i>Aquilegia formosa</i> sitka columbine	Middle and Yellowstone Plateau	Moist soil of open coniferous, cottonwood, or aspen forests in the montane to subalpine zone. 6700 - 8400 feet (2042 - 2560 meters)
<i>Arabis fecunda</i> sapphire rockcress	Northern Rocky Mountains	Open, rocky, often eroding slopes developed from calcareous parent material in the foothills and montane zones, restricted to the contact zone with igneous rock. 4200 - 7960 feet (1280 - 2426 meters)
<i>Astragalus barrii</i> Barr's milkvetch	Great Plains	Gullied knolls, buttes, and barren hilltops, often on calcareous soft shale and siltstone. 2940 - 4000 feet (896 - 1219 meters)
<i>Astragalus ceramicus var. apus</i> painted milkvetch	Middle Rocky Mountains	Sparsely vegetated sand dunes in the valley zone. 6680 - 6700 feet (2036 - 2042 meters)
<i>Astragalus grayi</i> Gray's milkvetch	Temperate Desert	Open soil in sagebrush steppe in the valley zone. 3700 - 5500 feet (1128 - 1676 meters)
<i>Astragalus scaphoides</i> Bitterroot milkvetch	Middle Rocky Mountains	Silty, often stony soil in sagebrush grassland in the valley and foothill zones. 5300 - 7160 feet (1615 - 2182 meters)
<i>Astragalus terminalis</i> railhead milkvetch	Middle Rocky Mountains	Sagebrush steppe and sparsely-vegetated grasslands in the valley, foothills, montane and alpine zones. 5000 - 9560 feet (1524 - 2914 meters)
<i>Athysanus pusillus</i> sandweed	Middle Rocky Mountains	Vernally moist, shallow soil of steep slopes and cliffs in the lower montane zone. 4000 - 4800 feet (1219 - 1463 meters)
<i>Bidens beckii</i> Beck water-marigold	Northern Rocky Mountains	Still or slow-moving water of lakes, rivers, and sloughs in the valleys, 0.1-3 m deep. 3000 - 4000 feet (914 - 1219 meters)
<i>Botrychium ascendens</i> upwardlobed moonwort	Northern Rocky Mountains	Stream floodplain habitats dominated by deciduous shrubs with lush cover by forbs, graminoids, and mosses in nw. MT. Reported from mesic meadows in OR and western red cedar habitats in ID and WA; possibly also occurring in these habitats in Montana. 3330 - 4800 feet (1015 - 1463 meters)
<i>Botrychium crenulatum</i> wavy-leaved moonwort	Northern and Middle Rocky Mountains	Stream bottoms, around seeps, on the edges of marshes, and in wet roadside swales, often on soils influenced by reprecipitated calcium. Vegetation dominated by spruce, alders, and dogwood, with high cover and diversity of forbs and graminoids. Also reported from western red cedar habitats. 2440 - 7680 feet (744 - 2341 meters)
<i>Botrychium montanum</i> mountain moonwort	Northern and Middle Rocky Mountains	Usually in deep litter of springy, mature western red cedar forests, but also in riparian thickets, mesic meadows, and grassy trail edges. 2640 - 4900 feet (805 - 1494 meters)
<i>Botrychium pendunculatum</i> stalked moonwort	Northern Rocky Mountains	Floodplain bottoms of glaciated valleys with mature western red cedar. Growing in stratified litter and alluvium layers in old stream channel bottoms. 2600 - 3660 feet (792 - 1116 meters)
<i>Carex chordorrhiza</i> creeping sedge	Northern and Middle Rocky Mountains	Wet, organic soil of SPHAGNUM fens in the montane zone. 3410 - 5280 feet (1039 - 1609 meters)
<i>Carex crawei</i> Craw's sedge	Middle Rocky Mountains and Great Plains	Gravelly or sandy, calcareous seepage zones of ponds, streams and springs in the valley to foothill zones and on the plains. 3280 - 4900 feet (1000 - 1494 meters)
<i>Carex livida</i> pale sedge	Northern, Middle Rocky Mountains and Great Plains	Wet, organic soils of fens in the foothill and montane zones. 2910 - 6030 feet (887 - 1838 meters)
<i>Carex parryana</i> spp. <i>idaho</i> Idaho sedge	Middle Rocky Mountains	Moist meadows around seeps, ponds, or streams, usually associated with calcareous parent materials in the foothills to montane zones. 4500 - 8420 feet (1372 - 2566 meters)
<i>Carex scoparia</i> pointed broom-sedge	Middle Rocky Mountains	Wet soil along rivers and sloughs in the valleys. 3070 - 4300 feet (936 - 1311 meters)

TABLE
RARE VASCULAR PLANT SPECIES OCCURRING ON STATE SCHOOL TRUST LAND

NAME	Vegetation Province	HABITAT
<i>Carex sychnocephala</i> many-headed sedge	Northern Rocky Mountain Forest and Great Plains	Moist soil of meadows along streams and ponds in the valleys and on the plains. 2150 - 5100 feet (655 - 1554 meters)
<i>Castilleja exilis</i> annual Indian paint brush	Middle and Yellowstone Plateau	Moist alkaline meadows in the valley zone. 3860 - 5320 feet (1177 - 1622 meters)
<i>Centunculus minimus</i> chaffweed	Northern, Middle Rocky Mountains and Great Plains	Vernally wet, sparsely vegetated soil around ponds and along rivers and streams in the valleys and on the plains. 3200 - 3300 feet (975 - 1006 meters)
<i>Chenopodium subglabrum</i> smooth goosefoot	Great Plains	Sparsely vegetated sand dunes and sandy terraces of major rivers on the plains. 2400 - 3450 feet (732 - 1052 meters)
<i>Chrysoplemium tetrandrum</i> Northern golden-carpet	Middle Rocky Mountains	Seeps, wet rock ledges, and stream banks in the montane zone. 4100 - 6700 feet (1250 - 2042 meters)
<i>Cleome lutea</i> yellow bee-plant	Temperate Desert	Open, often sandy soil of sagebrush steppe in the valleys. 4100 - 4600 feet (1250 - 1402 meters)
<i>Cryptantha fendleri</i> Fendler cat's-eye	Yellowstone Plateau and Great Plains	Open areas of sand dunes in the valleys and on the plains. 1970 - 6700 feet (600 - 2042 meters)
<i>Cyperus schweinitzii</i> Schweinitz flatsedge	Great Plains	Sparsely vegetated sand dunes on the plains. 2100 - 3445 feet (640 - 1050 meters)
<i>Cypripedium fasciculatum</i> clustered ladies slipper	Northern Rocky Mountains	Dry to moist forests in the montane zone. 2995 - 4700 feet (913 - 1433 meters)
<i>Cypripedium parviflorum</i> small yellow ladies-slipper	Northern, Middle Rocky Mountains, Yellowstone Plateau	Fens, damp mossy woods, seepage areas, and moist forest-meadow ecotones in the valley to lower montane zones. 2520 - 6200 feet (768 - 1890 meters)
<i>Cypripedium passerinum</i> sparrow's-egg ladies-slipper	Northern Rocky Mountains	Mossy, moist, or seepy places in coniferous forests, often on calcareous substrates. 3100 - 5700 feet (945 - 1737 meters)
<i>Dalea villosa</i> var. <i>villosa</i> silky prairie clover	Great Plains	Loose sand of sand dunes or eroded from sandstone outcrops. 1980 - 3430 feet (604 - 1045 meters)
<i>Dichanthelium oligosanthos</i> var. <i>scribnerianum</i> Scribner's panic grass	Northern Rocky Mountains and Great Plains	Open ponderosa pine woodlands of valleys and plains. 3120 - 3920 feet (951 - 1195 meters)
<i>Drosera angelica</i> English sundew	Northern, Middle Rocky Mountains, Yellowstone Plateau	With SPHAGNUM moss in wet, organic soils of fens in the montane zone. 3100 - 9000 feet (945 - 2743 meters)
<i>Dryopteris cristata</i> Buckler fern	Northern and Yellowstone Plateau	Moist to wet, often organic soils at the forest margins of fens and swamps in the montane zone. 2950 - 7350 feet (899 - 2240 meters)
<i>Elatine brachysperma</i> short-seeded waterwort	Middle and Yellowstone Plateau	Shallow waters, shores and mudflats of lakes and ponds in valleys. 3000 - 6700 feet (914 - 2042 meters)
<i>Eleocharis rostellata</i> beaked spikerush	Northern and Middle Rocky Mountains	Wet, often alkaline soils, associated with warm springs or fens in the valley and foothills zones. 2700 - 6100 feet (823 - 1859 meters)
<i>Elymus flavescens</i> sand wildrye	Middle Rocky Mountains	Sparsely-vegetated sand dunes in the valleys. 6680 feet (2036 meters)
<i>Epipactis gigantea</i> giant helleborine	Northern, Middle Rocky Mountains, Yellowstone Plateau	Stream banks, lake margins, fens with springs and seeps, often near thermal waters. 2900 - 6200 feet (884 - 1890 meters)
<i>Erigeron asperugineus</i> Idaho fleabane	Middle Rocky Mountains	Open soil and scree in the alpine zone. 6000 - 10000 feet (1829 - 3048 meters)
<i>Erigeron lackschewitzii</i> Lackschewitz fleabane	Middle Rocky Mountains	Open, gravelly, calcareous soil and talus on ridgetops in the alpine and subalpine zones. 6400 - 8400 feet (1951 - 2560 meters)
<i>Eriogonum caespitosum</i> mat buckwheat	Middle Rocky Mountains	Dry, stony limestone sagebrush steppe. 6900 - 7400 feet (2103 - 2256 meters)
<i>Eriophorum gracile</i> slender cottongrass	Northern Rocky Mountains	Wet, organic soil of fens in the valley and montane zones. 3080 - 7600 feet (939 - 2316 meters)
<i>Grayia spinosa</i> spiny hopsage	Temperate Desert	Dry, alkaline soils in desert shrubland of valleys. 4200 - 5000 feet (1280 - 1524 meters)
<i>Grindelia howellii</i> Howell's gum-weed	Middle Rocky Mountains	Vernally moist, lightly disturbed soil adjacent to ponds and marshes, as well as similar human-created habitats, such as roadsides and grazed pastures. 3320 - 5960 feet (1012 - 1817 meters)

TABLE
RARE VASCULAR PLANT SPECIES OCCURRING ON STATE SCHOOL TRUST LAND

NAME	Vegetation Province	HABITAT
<i>Haplopappus carthamoides</i> var. <i>subsquarrosus</i> Beartooth large-flowered goldenweed	Temperate Desert	Grassland and sagebrush steppe on sandy calcareous soils in the foothills and montane zones. 5520 - 7200 feet (1682 - 2195 meters)
<i>Howellia aquatilis</i> water howellia	Northern Rocky Mountains	Small, vernal, freshwater glacial ponds and oxbow sloughs in the valley zone. 3100 - 4425 feet (945 - 1349 meters)
<i>Idahoia scapigera</i> scalepod	Middle Rocky Mountains	Vernally moist, open soil on rock ledges in the lower montane zone. 4600 - 4600 feet (1402 - 1402 meters)
<i>Kobresia simpliciuscula</i> scalepod	Northern, Middle and Yellowstone Plateau	Moist tundra in the alpine zone. 4570 - 9000 feet (1393 - 2743 meters)
<i>Leptodactylon caespitosum</i> Leptodactylon	Temperate Desert	Dry, barren hills, in rocky soils or in crevices of outcrops in the valley zone. 4350 - 5100 feet (1326 - 1554 meters)
<i>Lesquerella carinata</i> var. <i>languida</i> garnet bladderpod	Middle Rocky Mountains	Gravelly, calcareous grassland slopes in the foothills zone. 4250 - 5600 feet (1295 - 1707 meters)
<i>Lesquerella lescii</i> Lesica's bladderpod	Temperate Desert	Gravelly, limestone-derived soil of open ridges and slopes among Douglas-fir and mountain mahogany woodlands in the montane zone. 5300 - 7600 feet (1615 - 2316 meters)
<i>Lewisia pygmaea</i> var. <i>nevadensis</i> Nevada bitterroot	Middle Rocky Mountains	Vernally moist, shallow soil of meadows and open forest in the montane and subalpine zones. 5040 - 7000 feet (1536 - 2134 meters)
<i>Liparis loeselii</i> Loesel's twayblade	Northern Rocky Mountains	Wet, organic soils of calcareous fens in the valley and montane zones. 3100 - 3300 feet (945 - 1006 meters)
<i>Lobelia spicata</i> pale-spiked lobelia	Great Plains	Moist meadows on the plains. 1930 - 2005 feet (588 - 611 meters)
<i>Lomatium attenuatum</i> taper-tip desert-parsley	Middle Rocky Mountains	Gravelly, limestone-derived slopes of sparsely vegetated sagebrush steppe or woodlands with Rocky Mountain juniper, Douglas fir, limber pine, or mountain mahogany in the foothill and montane zones. 5780 - 8900 feet (1762 - 2713 meters)
<i>Lomatium nuttallii</i> Nuttall desert-parsley	Great Plains	Dry, rocky slopes of open pine woodland in the plains. 3600 feet (1097 meters)
<i>Maianthemum canadense</i> var. <i>interius</i> wild lily-of-the-valley	Great Plains	Moist, humic soil in riparian forest on the plains. 3430 feet (1045 meters)
<i>Mentzelia nuda</i> bractless mentzelia	Great Plains	Sandy or gravelly soil of open hills and roadsides on the plains. 2010 - 2500 feet (613 - 762 meters)
<i>Mimulus nanus</i> dwarf purple monkeyflower	Middle Rocky Mountains	Dry, open, often gravelly or sandy slopes in the valleys and foothills. 4340 - 6700 feet (1323 - 2042 meters)
<i>Nyphaea tetragona</i> spp. <i>leibergii</i> pygmy water-lily	Northern Rocky Mountains	Quiet, fresh water of lakes and backwater sloughs in the valleys. 2890 - 3100 feet (881 - 945 meters)
<i>Ophioglossum pusillum</i> adder's tongue	Northern Rocky Mountains	Wet meadows, margins of fens, and gravelly moist soil in the valley and montane zones. 2920 - 4450 feet (890 - 1356 meters)
<i>Penstemon lemhiensis</i> Lemhi beardtongue	Middle Rocky Mountains	Open sagebrush and woodland slopes in foothill to lower subalpine zones. 4150 - 8200 feet (1265 - 2499 meters)
<i>Potamogeton obtusifolius</i> blunt-leaved pondweed	Northern Rocky Mountains	Shallow water of lakes, ponds, and sloughs in the valley, foothill, and montane zones. 3080 - 5200 feet (939 - 1585 meters)
<i>Primula incana</i> mealy primrose	Middle Rocky Mountains and Great Plains	Alkaline meadows in valley and foothill zones, and plains. 2044 - 7000 feet (623 - 2134 meters)
<i>Psilocarphus brevissimus</i> var. <i>brevissimus</i> dwarf wooly-heads	Northern Rocky Mountains and Great Plains	Drying mud of ponds and other vernal wet soil in the valleys and on the plains. 2300 - 3400 feet (701 - 1036 meters)
<i>Quercus macrocarpa</i> bur oak	Great Plains	Low, shale-derived hills on the plains. 3435 - 3650 feet (1047 - 1113 meters)
<i>Salix serissima</i> autumn willow	Northern and Middle Rocky Mountains	Fens and swamps in the valley and foothill zones. 4200 - 5000 feet (1280 - 1524 meters)
<i>Scheuchzeria palustris</i> pod-grass	Northern Rocky Mountains	Wet, organic soil of fens in the valley and montane zones, usually with SPHAGNUM moss. 2950 - 6550 feet (899 - 1996 meters)
<i>Scirpus cespitosus</i> tufted club-rush	Northern Rocky Mountains	Wet meadows and sphagnum bogs in the montane to alpine zones. 3200 - 9200 feet (975 - 2804 meters)

TABLE
RARE VASCULAR PLANT SPECIES OCCURRING ON STATE SCHOOL TRUST LAND

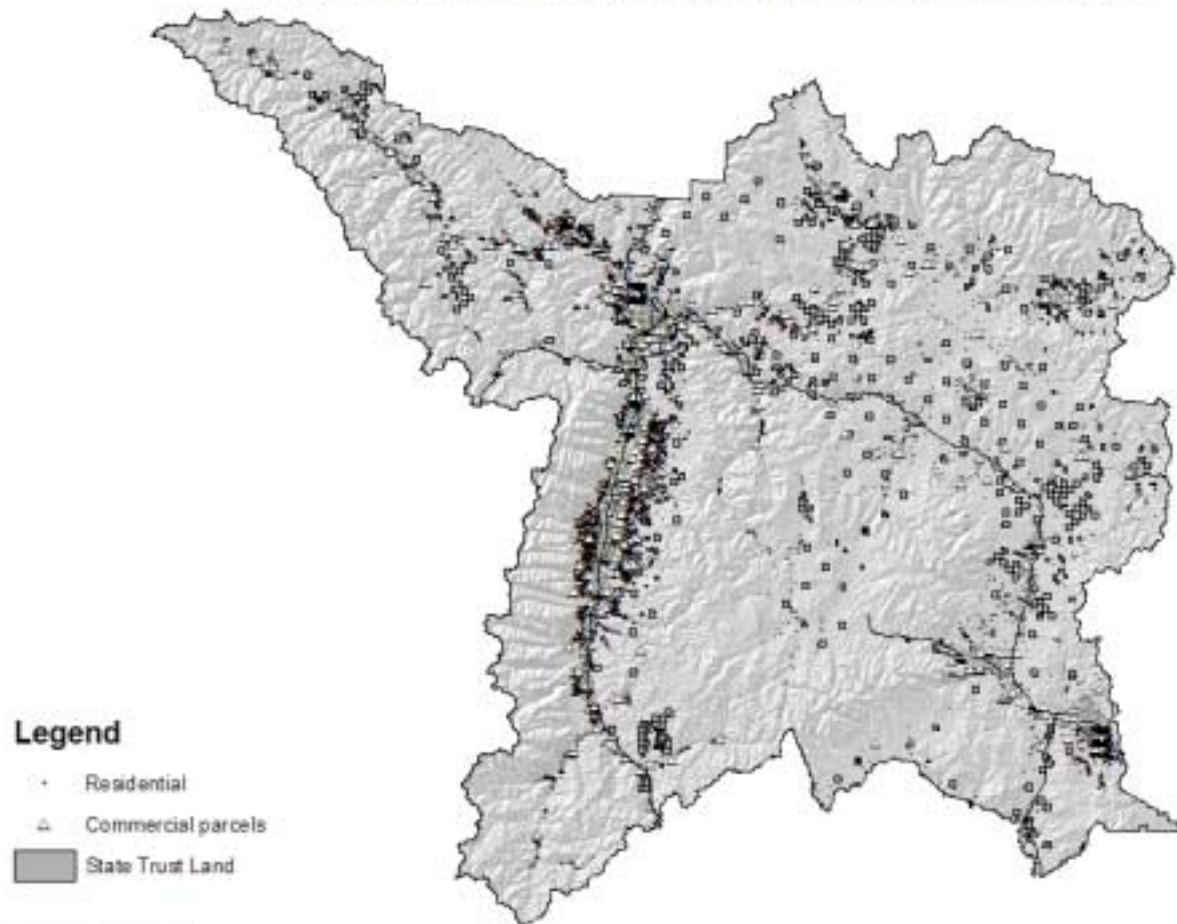
NAME	Vegetation Province	HABITAT
<i>Scirpus subterminalis</i> water bullrush	Northern and Middle Rocky Mountains	Open water and boggy margins of ponds, lakes, and sloughs at 0.1-3 m depth in the valley, foothill, and montane zones. 2890 - 6000 feet (881 - 1829 meters)
<i>Solidago ptarmicoides</i> prairie aster	Great Plains	Open, dry grasslands, often on sandy soil or limestone on the plains. 2020 - 3550 feet (616 - 1082 meters)
<i>Solidago sparsiflora</i> few-flowered goldenrod	Great Plains	Sandy soil of grasslands or open woodlands on the plains. 3220 feet (981 meters)
<i>Sphaeromeria argentea</i> chicken sage	Great Plains	Shallow limestone-derived soil in sagebrush steppe in the valley and foothill zones. 5900 - 7200 feet (1798 - 2195 meters)
<i>Spiranthes diluvialis</i> Ute ladies tresses	Middle Rocky Mountains	Meandered wetlands and swales in broad, open valleys, at margins with calcareous carbonate accumulation. 4050 - 5080 feet (1234 - 1548 meters)
<i>Sporobolus asper</i> longleaf dropseed	Great Plains	Open forests and grasslands on the plains. 2470 - 3500 feet (753 - 1067 meters)
<i>Sporobolus neglectus</i> small dropseed	Middle Rocky Mountains and Great Plains	Grasslands in the valleys and on the plains; both natural and disturbed habitats are represented in MT. 2500 - 4900 feet (762 - 1494 meters)
<i>Stephanomeria spinosa</i> spiny skeletonweed	Middle Rocky Mountains	Dry grasslands in the valley and foothill zones. 4920 - 6660 feet (1500 - 2030 meters)
<i>Sullivantia hapemanii</i> var. <i>hapemanii</i> Wyoming sullivantia	Temperate Desert	Calcareous springs and seeps on moist canyon walls, streambank outcrops, and in close proximity to waterfalls. 3700 - 5800 feet (1128 - 1768 meters)
<i>Thelypodium paniculatum</i> Northwestern thelypody	Middle Rocky Mountains	Wet, often alkaline meadows in the valley to montane zones. 6760 - 6800 feet (2060 - 2073 meters)
<i>Thlaspi parviflorum</i> small-flowered pennycress	Middle and Yellowstone Plateau	Moist to dry meadows and limestone cliffs in the montane to alpine zones. 6880 - 10100 feet (2097 - 3078 meters)
<i>Trifolium gymnocarpon</i> hollyleaf clover	Middle Rocky Mountains	Open woods and slopes, usually in dry soil of sagebrush steppe to ponderosa pine forest in the foothills to lower montane zone. 4800 - 6300 feet (1463 - 1920 meters)

TABLE RARE NON-VASCULAR PLANT SPECIES OCCURRING ON STATE SCHOOL TRUST LAND		
NAME	Vegetation Province	HABITAT
<i>Aloina brevirostris</i> short-beaked rigid screw moss	Northern Rocky Mountains	Likely in moist conifer forests
<i>Amblyodon dealbatus</i>	Northern Rocky Mountains	Likely in moist conifer forests
<i>Collema curtisporum</i>	Northern Rocky Mountains	Moist riparian forests, almost always on <i>Populus trichocarpa</i>

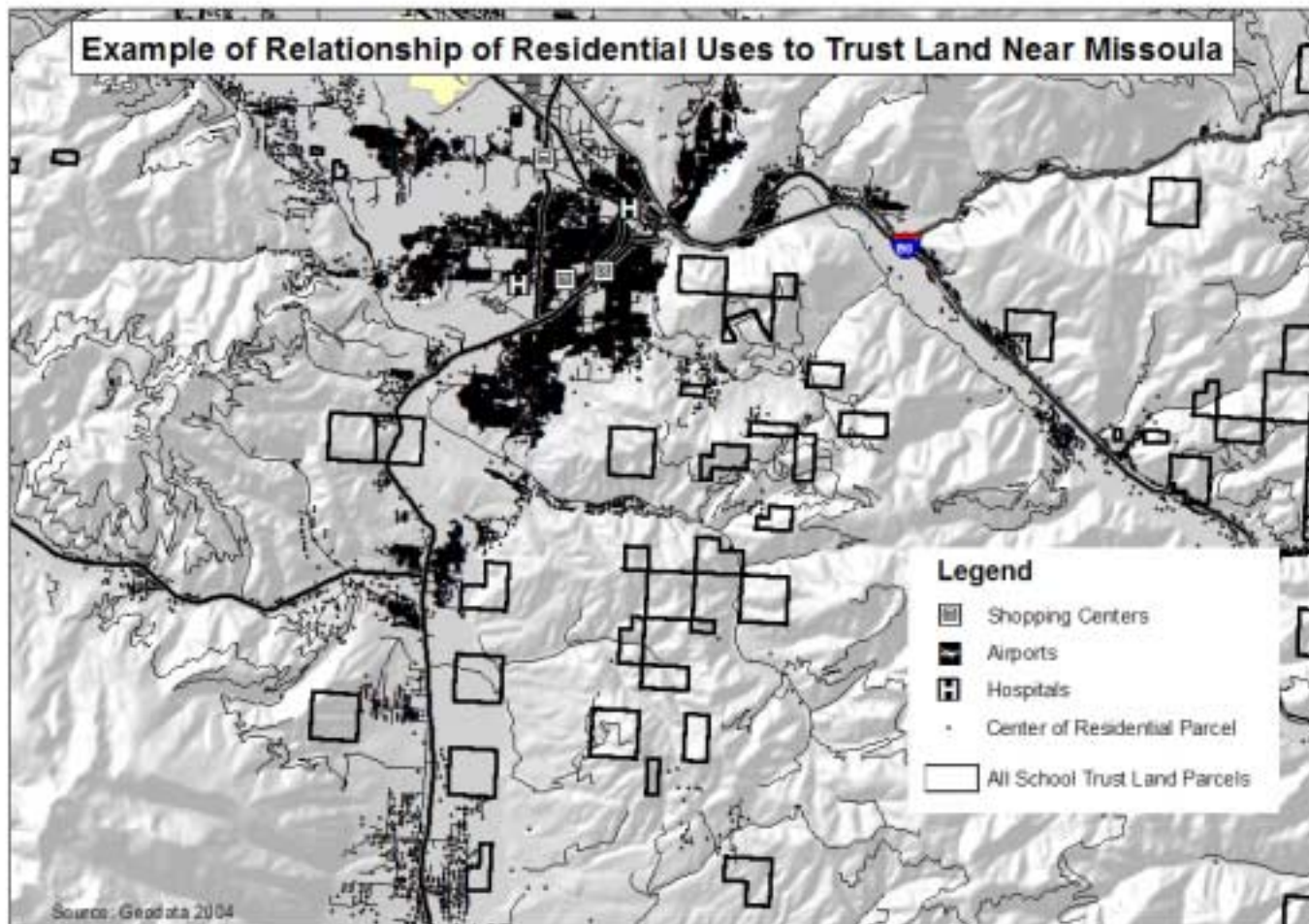
Appendix G

Relationship of Growth to Trust Lands (Series of Maps)

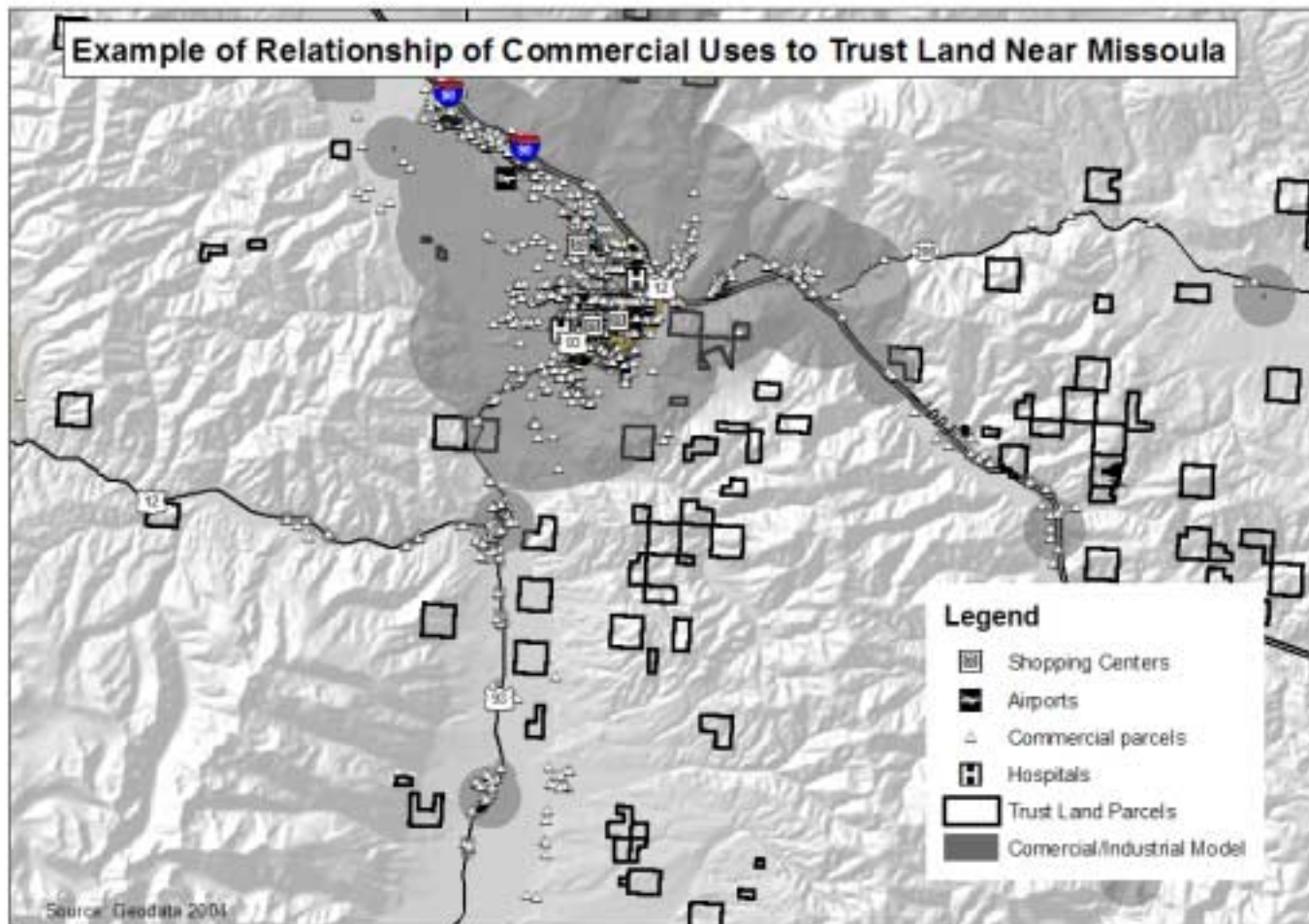
Locations of Industrial, Commercial and Residential Uses in SWLO



Example of Relationship of Residential Uses to Trust Land Near Missoula



Example of Relationship of Commercial Uses to Trust Land Near Missoula

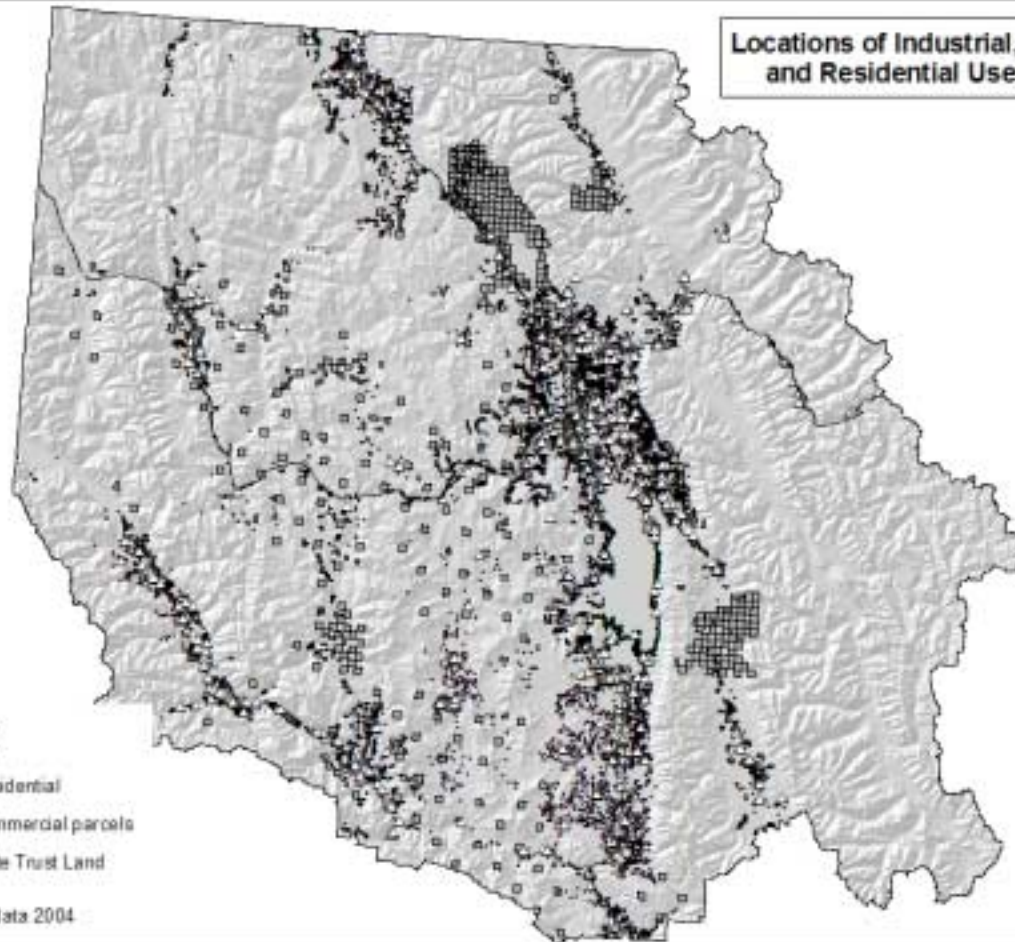


Locations of Industrial, Commercial
and Residential Uses in NWLO

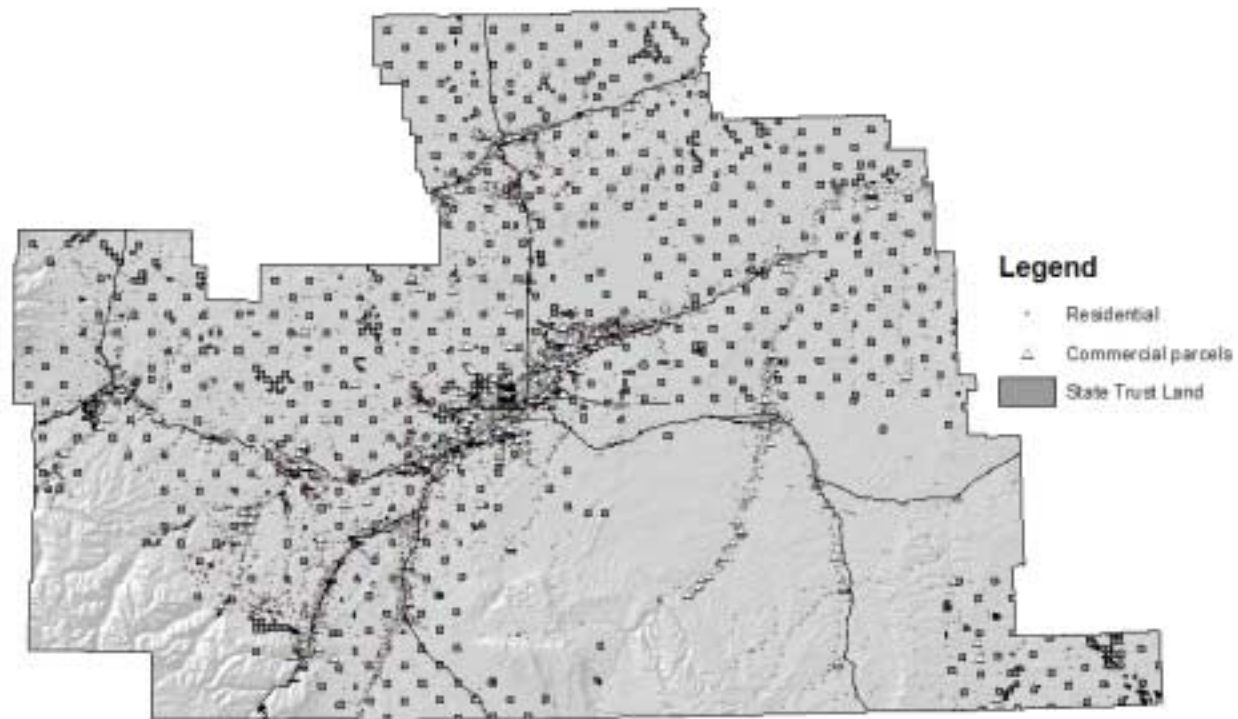
Legend

- Residential
- △ Commercial parcels
- State Trust Land

Source: Geodata 2004

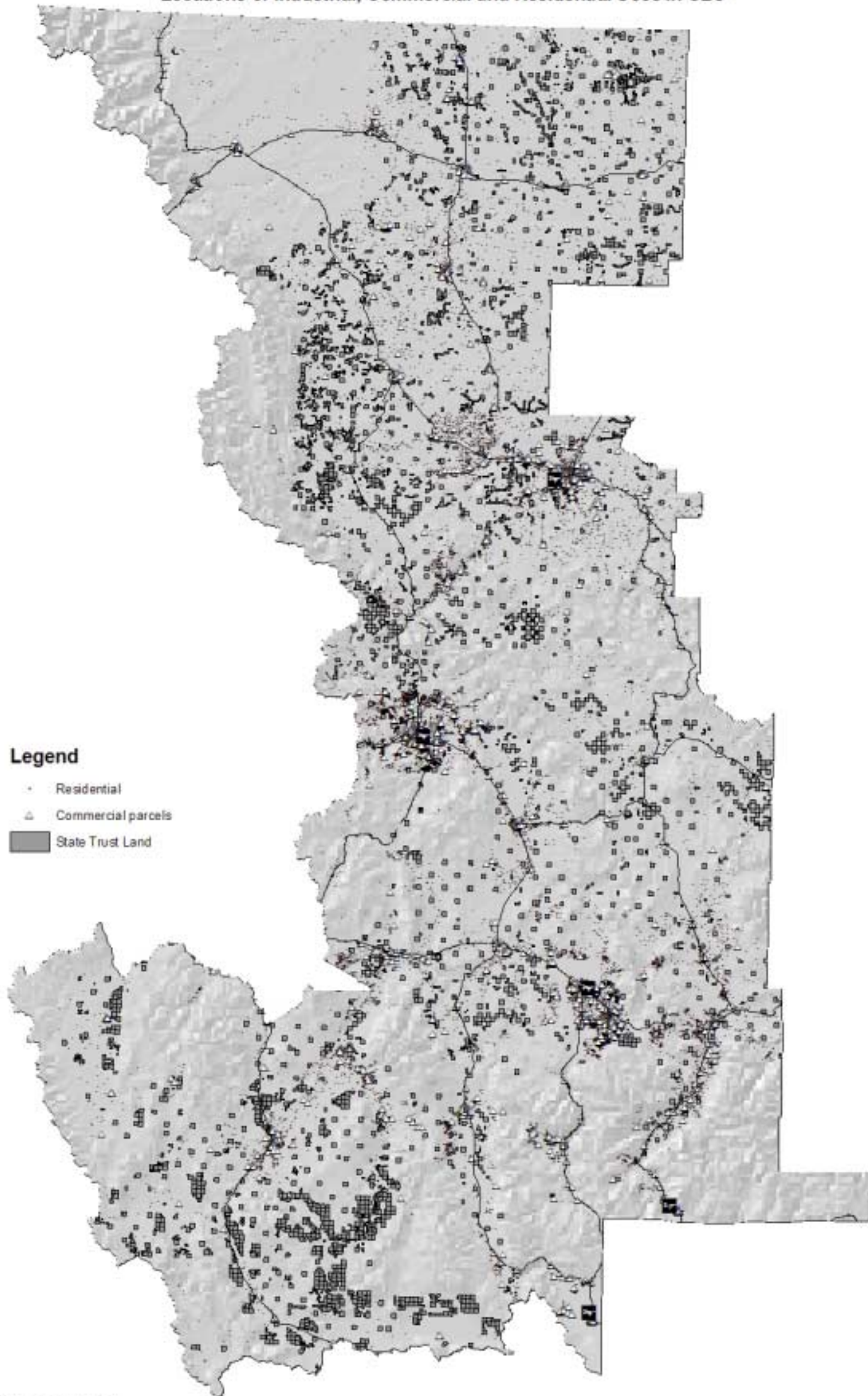


Locations of Industrial, Commercial and Residential Uses in SLO



Source: Geodata 2004

Locations of Industrial, Commercial and Residential Uses in CLO

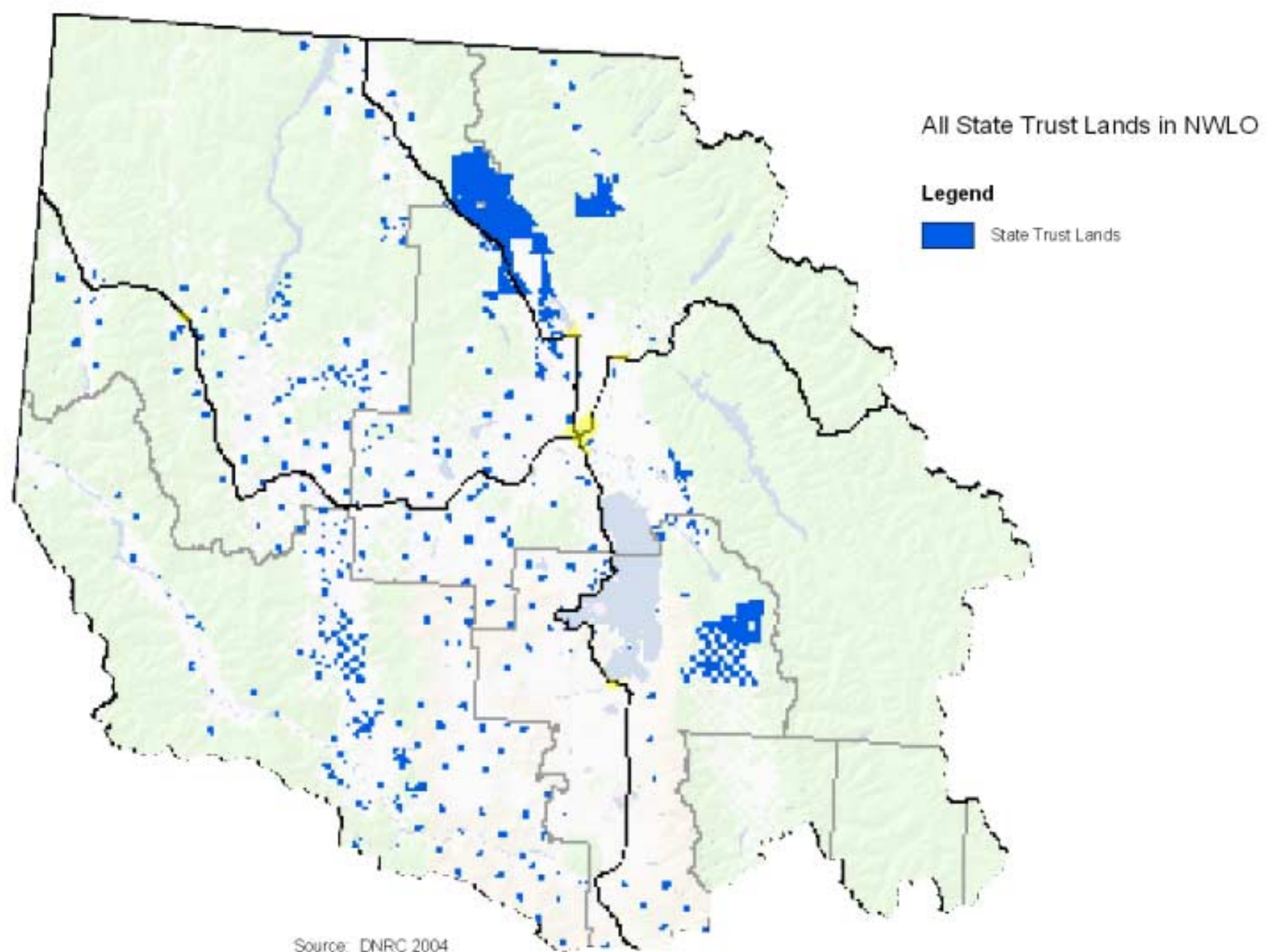


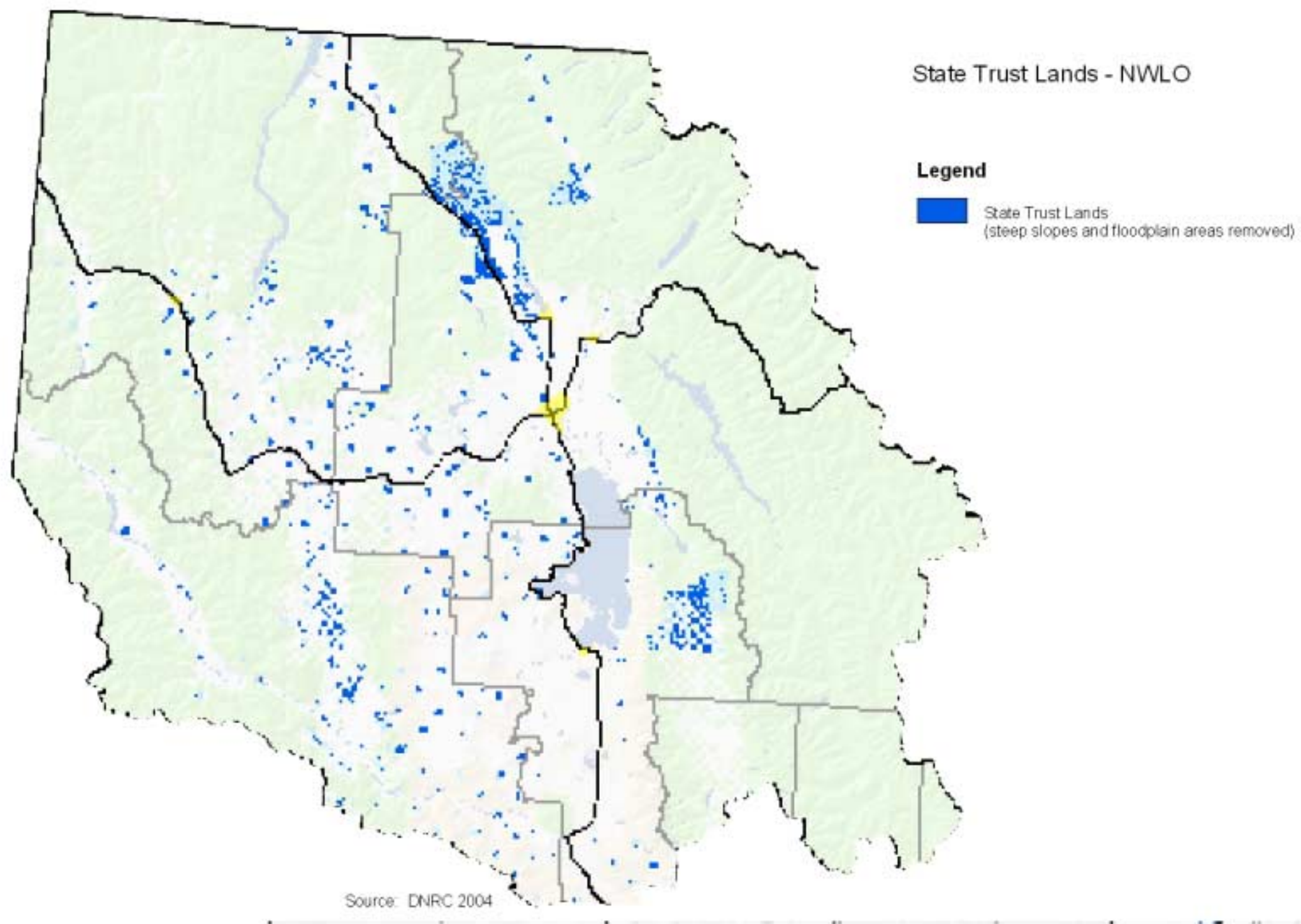
Source: Geodata 2004

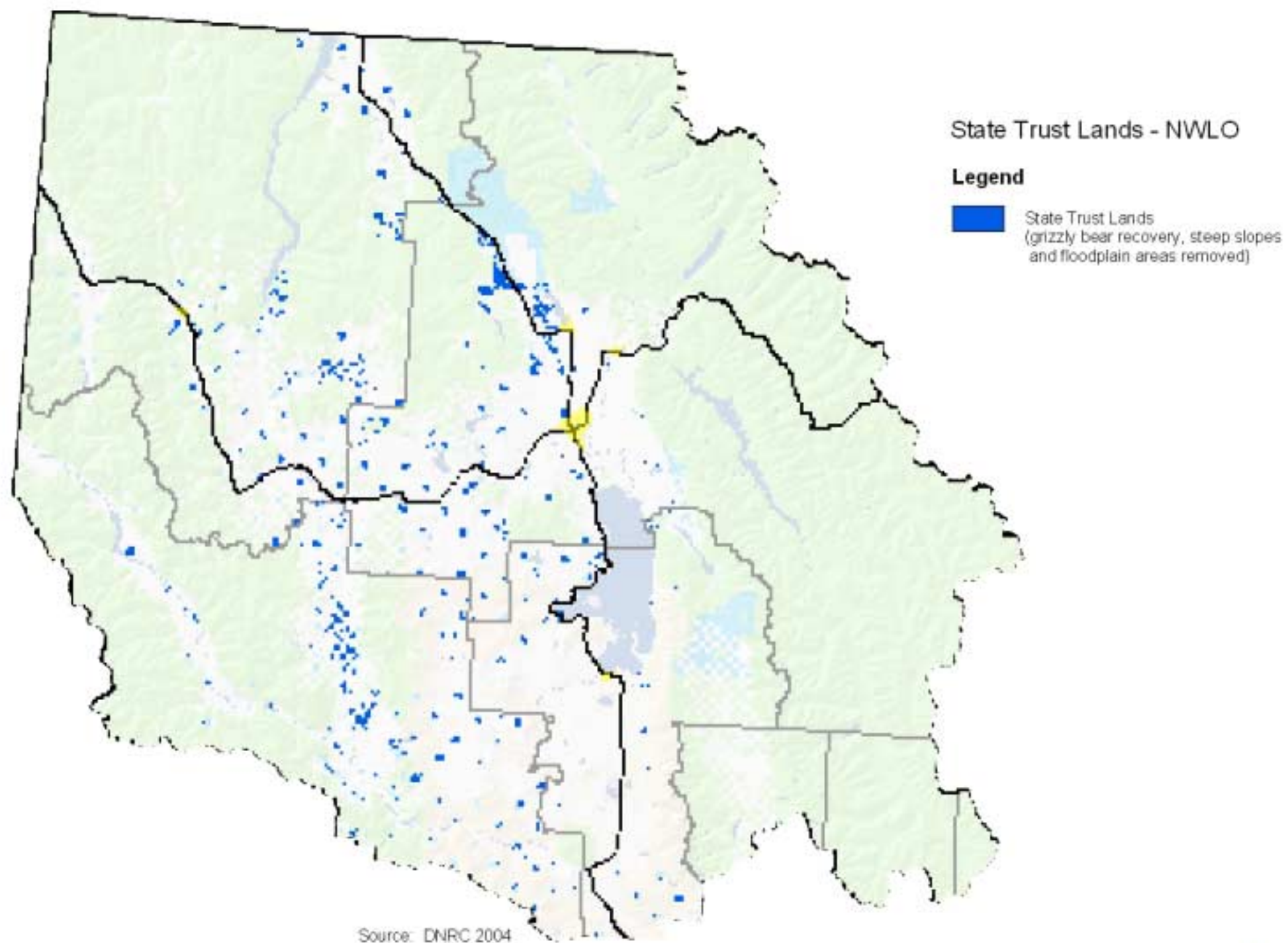
Appendix H

Funnel Filter Process Map Examples

- Northwest Land Office – Series of 5 maps
- Southwest Land Office – Series of 5 maps
- Central Land Office – 1 map
- Southern Land Office – 1 map

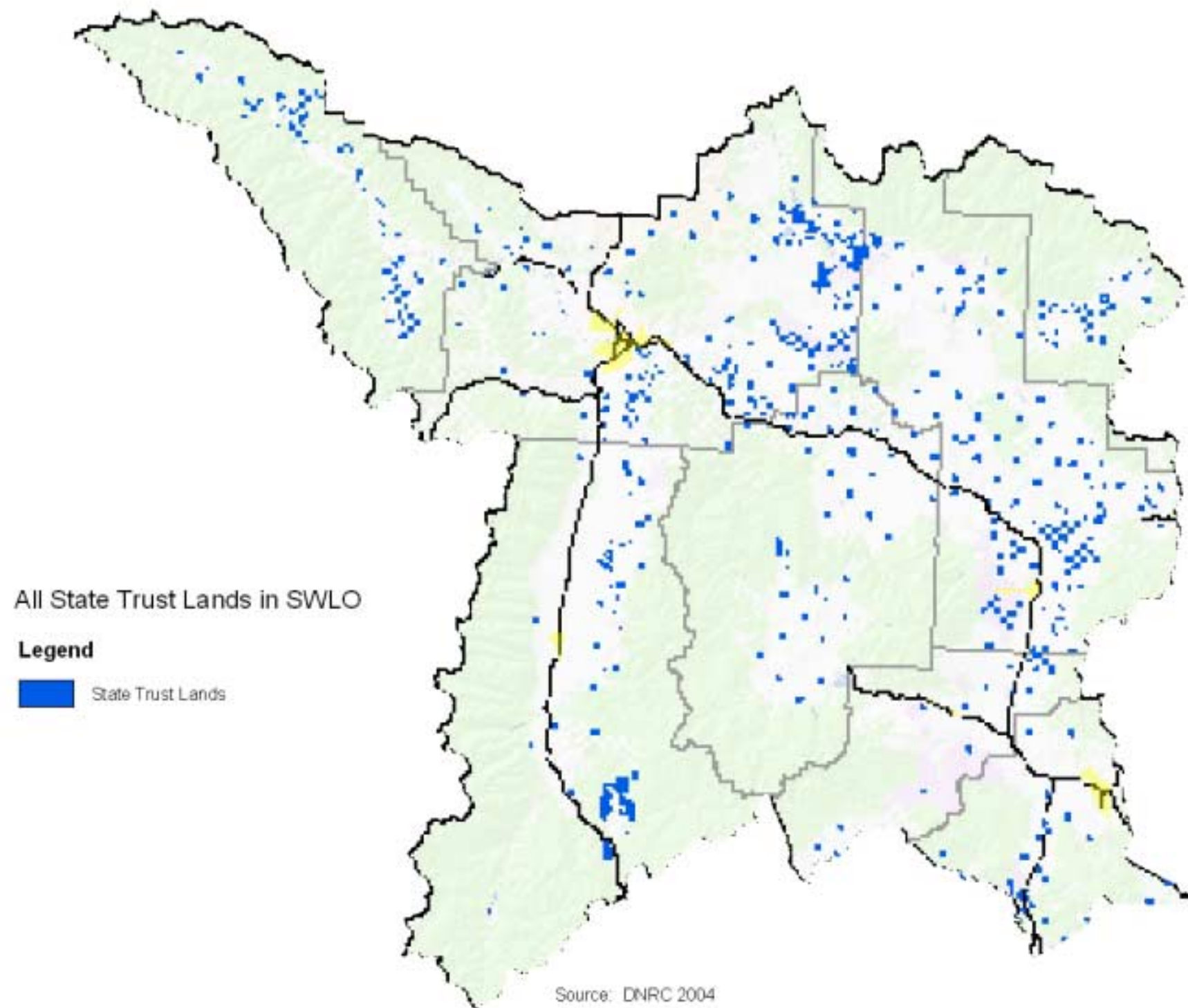









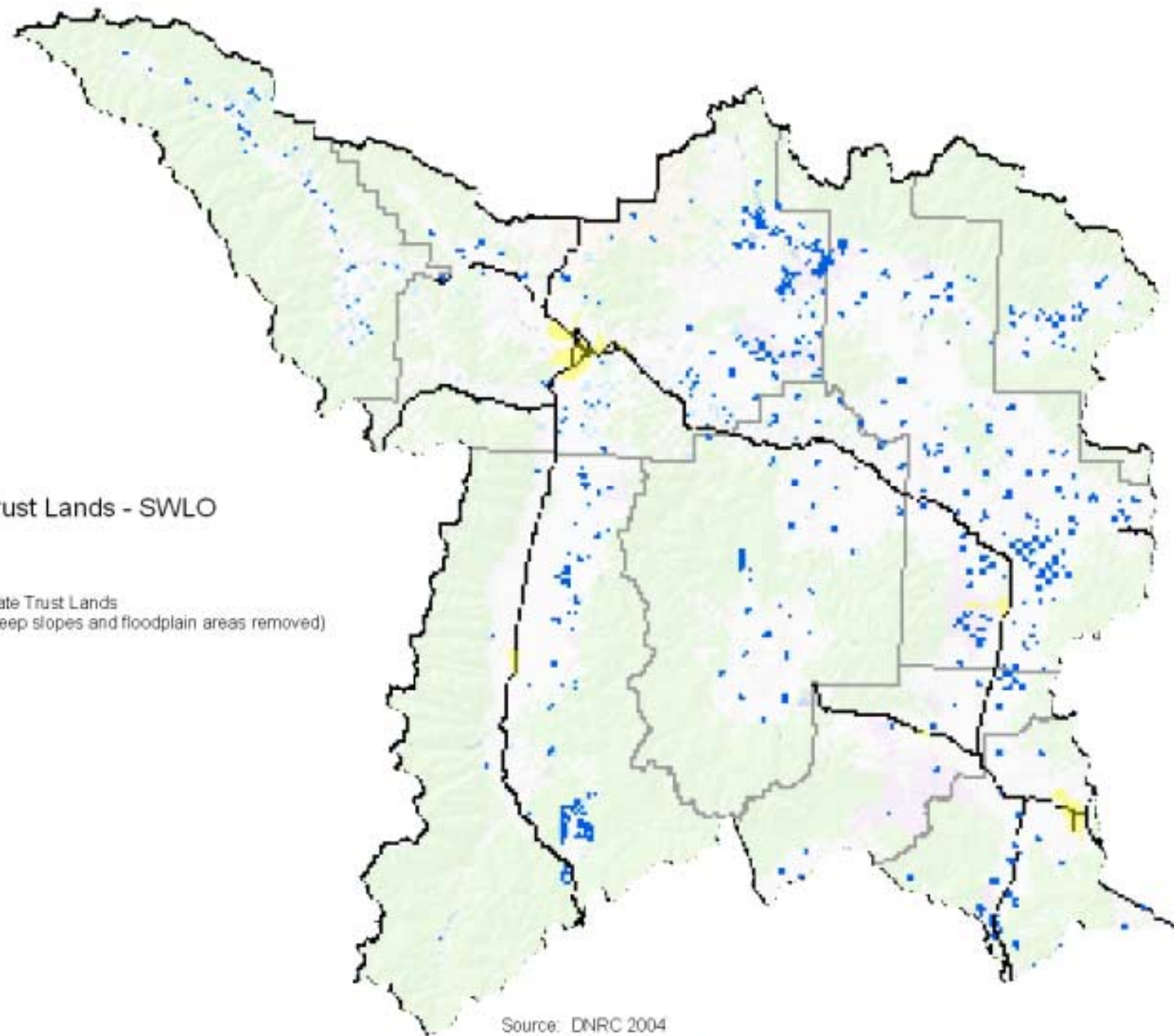




State Trust Lands - SWLO

Legend


 State Trust Lands
(steep slopes and floodplain areas removed)

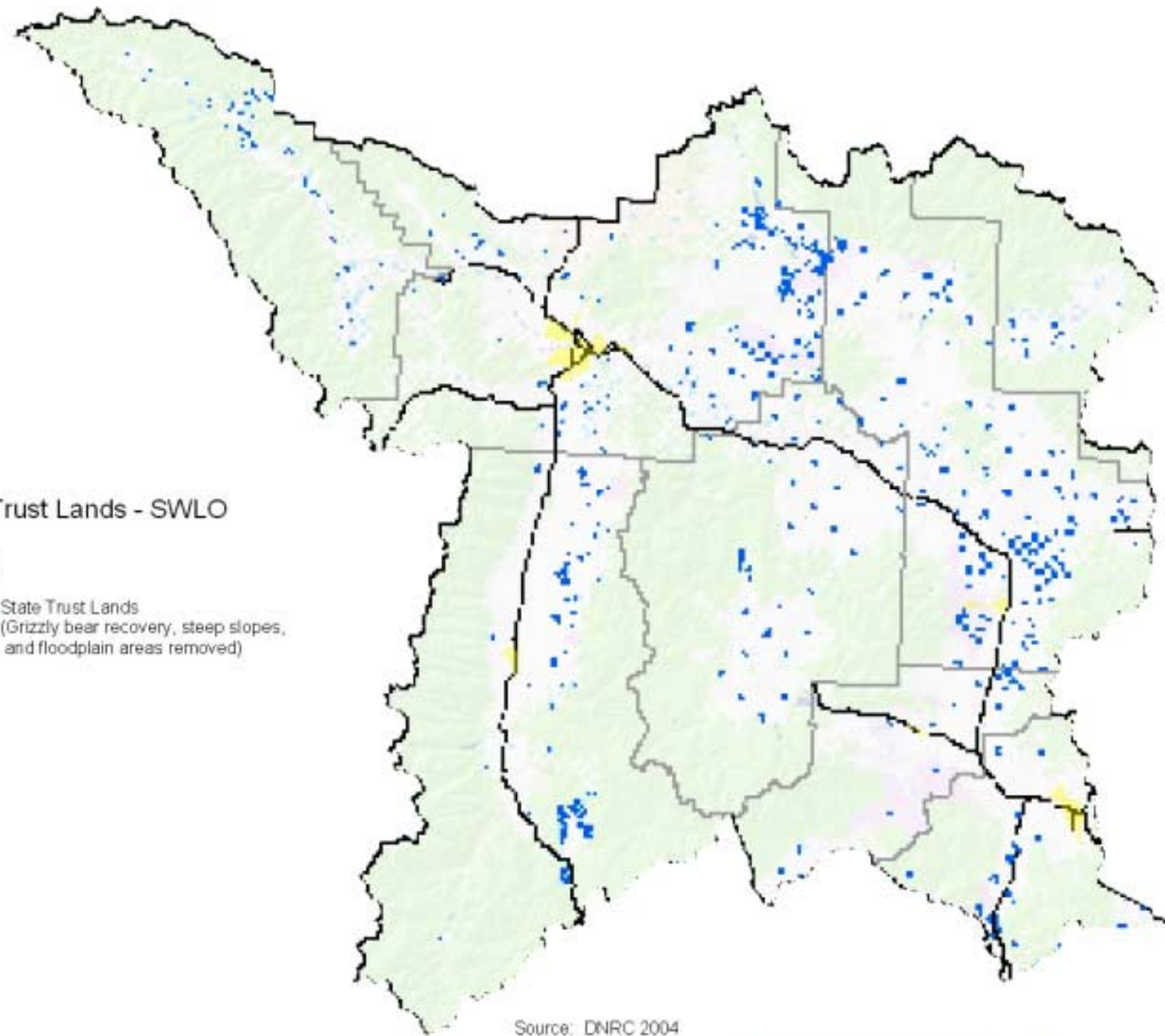


Source: DNRC 2004

State Trust Lands - SWLO

Legend

-  State Trust Lands
(Grizzly bear recovery, steep slopes,
and floodplain areas removed)





Source: DNRC 2004



State Trust Lands - SWLO

Legend

-  State Trust Lands
(Highest quantile after grizzly bear recovery,
steep slopes, and floodplain areas removed)
-  Residential Points (from parcel centroids)



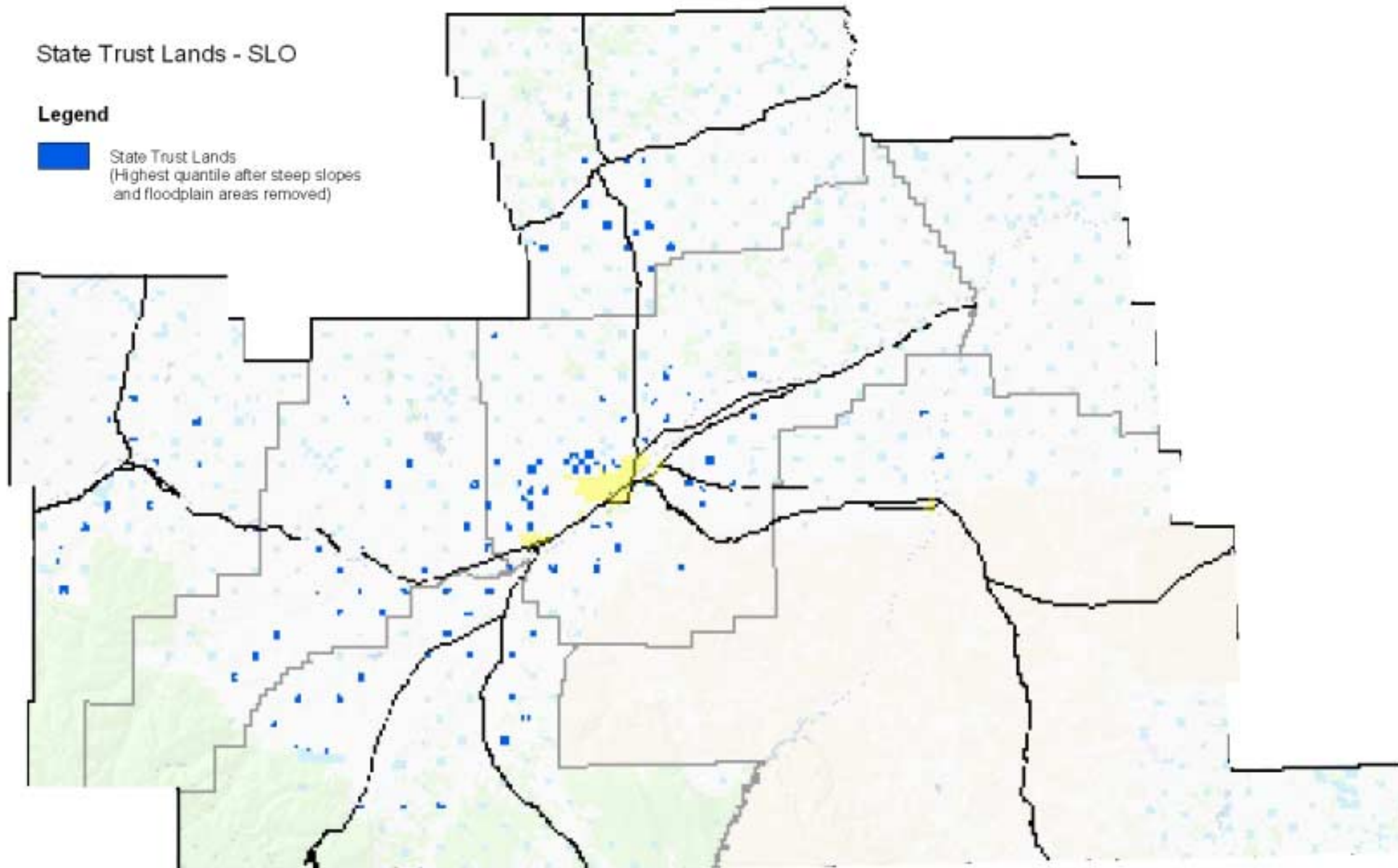
Source: DNRC 2004

State Trust Lands - SLO

Legend



State Trust Lands
(Highest quantile after steep slopes
and floodplain areas removed)



Source: DNRC 2004

